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ABSTRACT

Designed to fit into existing curricula, the loose-leaf guide includes instructional aids, resources, and units for grades K-6. Each grade is presented separately, but with informative introductory material duplicated in each. For all grades, materials include information sheets for instructors about bicycles and traffic safety, and a list of sources for commercial materials. Next are format sheets, indicating grade level and subjects in existing subject area curricula that apply to the material. Each unit covers concepts to teach, new words associated with the concepts, and performance objectives. In each unit, a student performance column indicates activities for achieving performance objectives and identifies corresponding individualized learning guide sheets and transparency original sheets, which can be reproduced for overhead projection. An instructional programing column lists appropriate materials for each unit and corresponding reinforcement activity sheets. Other columns are for instructor performance and student performance. Reproducible appendixes can be used for all grades. (MDW)

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Traffic Education for Montana Elementary Schools

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FEB 03 1975

DOLORES COLBURG, SUPERINTENDENT OF PUBLIC INSTRUCTION, HELENA, MONTANA 59601

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STATE PUBLISHING CO.–LITHO

PREFACE

This curriculum guide has been developed to assist teachers in an instructional program for elementary school youngsters in traffic education. The guide provides instructional aids and resource materials that are designed to fit smoothly into many areas of existing elementary curricula.

The basic materials in this guide were developed by participants in a July, 1973 workshop sponsored by my office and supported with a grant under the Highway Safety Act of 1966. The participants, who functioned as a task force team, are

Larry Becker
Barbara Bowlen
Don Burman
Marge Carlson
Joel Cobetto
Robert Eva
Gary Ford
Earl Furlong
Dorothea Grow
James Gunlikson
Lowell Hayes
Patricia Heydon
David Jones
Margaret Kavulla
Robert LeMieux
Thomas Loggins
Dan Magstadt
Lynn Mavencamp
Dan McKenty
Mildred McMillion
Harold G. Mogen
Raine Montysals
Roland Newton
Boyd O'Connell
Ed Reichert
Michael Rosbarsky
Minnie Skinner
David Stabio
Jack Sutton
Tally Taylor
William Taylor
R. Keith Thomas
Andrew Veis
Richard West
Jack Witham

Curtis R. Hahn, Traffic Education Supervisor, and Georgia D. Rice, Assistant Traffic Education Supervisor in my office, directed the entire effort in producing this guide. Consultative assistance, particularly for the July, 1973 workshop, was provided by Richard Boyer of Glenview, Illinois. Jerome Rankin did the artwork for the guide.

While this guide was pilot-tested in twelve elementary schools in the state prior to final publication and distribution, we would welcome responses from all who receive the guide as to its usefulness as an instructional and learning tool. Critical review of and comment on this guide can be of assistance to us in future efforts of this office.

DOLORES COLBURG
Superintendent of Public Instruction

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APPLIED INSTRUCTION AREA

To assist the instructor to integrate safety activities into instructional areas, subjects are listed and appropriate pages given below.

Subject Area	*Page Number of Related Traffic Safety Activities*
ART	18, 26, 28, 31, 40, 52, 55
HEALTH	43, 45, 52
LANGUAGE ARTS (Reading Readiness)	18, 23, 26, 31, 34, 38, 40, 50, 52
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MUSIC	Appendix M, O–S
PHYSICAL EDUCATION	28, 40, 43
SCIENCE	43, 45, 47
SOCIAL STUDIES (Careers)	18, 38, 40, 55

INTRODUCTION

As most of you know, traffic accidents represent one of the greatest threats to human preservation. Individuals are involved in a highly complex traffic environment from birth and remain involved throughout their lifetime as a passenger, pedestrian, bicyclist and motor vehicle operator. Consequently we owe it to our students to provide them the opportunity to learn the knowledges, skills, and attitudes that will allow them to function successfully within the traffic environment.

The education of a student is brought about by effective management of the total learning environment. After perusing the enclosed curricular guidelines, we believe you will discover that management by objective can be successfully applied and because the program is "performance based," learner achievement is promoted.

If we accept human preservation as an appropriate educational goal to manage as a part of the total learning environment, we must help the student develop his dicision making ability. The decision making process should begin early in the development of the student. The performances required in this program are built around decision making and problem solving. To be more specific, the concepts of IDENTIFY, PREDICT, DECIDE and ACT must be encouraged and taught throughout the utilization of this material.

The student must learn to IDENTIFY the problem or situation; PREDICT what might happen; DECIDE what course of action he must take to successfully deal with the situation; and ACT effectively. The IPDA concept has application on a much broader basis than just the traffic environment.

Human preservation cannot be achieved without the help, commitment and involvement of the following:

PARENTS

Nobody quarrels with the axiom that education begins in the home. Utilizing the home as the nearest "grass roots" of a child's learning environment is essential. The more sterile and removed the environment of the classroom, the more doomed to failure learning becomes. Ways to gain the curiosity, healthy interest, and helpful assistance of the parents are integrated in this program. The imagination of the instructor is unlimited when involvement is used to further develop the methods or create new methods.

STUDENTS

This program is based on the principle that students are aware of what tasks are expected of them, that they know what they can expect of their teachers, and that through their efforts, they can achieve success. Students are the gatherers and discoverers of information, not the receivers. Students develop psychomotor skills through practice, not as trainees. Students must become involved in the total task.

SCHOOL

When instructors, the administration, and school board agree on established goals, the compartmentalized school solidifies into a total unit dedicated to teaching the total student. A student who becomes a statistic in accident reports is denied his birthright to an education. Accident reduction in the traffic environment is an easily agreed upon goal.

COMMUNITY

No matter how small or isolated the community, various service, social, religious, and fraternal organizations and agencies are dedicated to the same goal as education. Some of these organizations and agencies have a wealth of experience, materials, and maybe most importantly, time which can be utilized and channeled for the benefit of kids. The prepared, interested and effective teacher makes full use of the community.

STATE

The Office of the Superintendent of Public Instruction Traffic Education Program is especially receptive to your suggestions to improve, polish, and perfect the instructional content of this program. Any evaluation, innovation, successful methodology from you, the instructor, would be helpful. Other agencies are also committed to the education of youth. Some are mentioned in this program.

FEDERAL

The many projects initiated by the federal government, which focus on the youth, should be evidence of a commitment to be of assistance. Often, what seems to be apathy is ignorance of your needs.

LAW ENFORCEMENT AGENCIES

From the highway patrolman to the town marshal to the sheriff – all have a vital concern that a student will be educated with a respect for and understanding of the laws which govern a society. Probably from no other source will the instructor find more cooperative and helpful people. Too often these people have seen the results of ignorance and carelessness in a traffic environment. They have a personal and professional commitment to the same goals as the instructor and this program.

SUMMARY

Students would never learn a new concept if it were not a more advanced endeavor than his previous level of knowledge. The program is created on a "building block" concept and though some concepts are difficult at the grade level assigned, the instructor should be cognizant that the student beginning at K with the kindergarten material will be ready for grade one material. Also it is not a challenge to the learner to repeat a concept which he has already discovered. Challenge your student or you will have discipline problems, frustration, and dull classes.

INVOLVEMENT

CREATES

COMMITMENT .

COMMITMENT

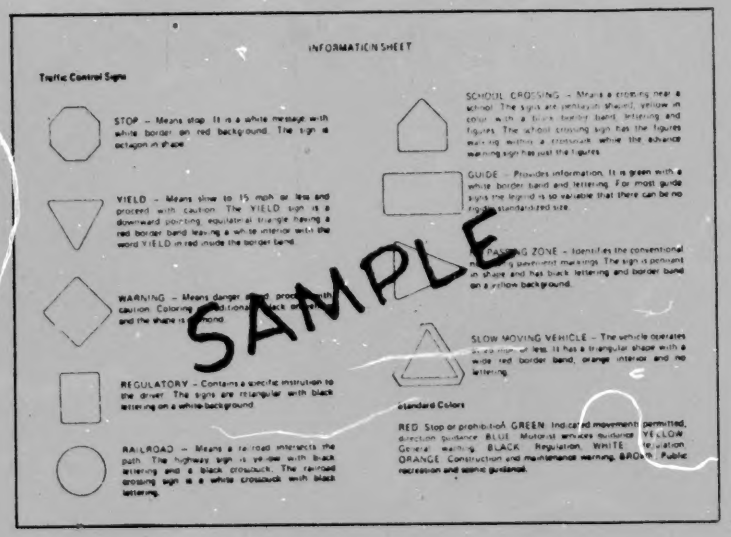
CREATES

SUCCESS.

DESCRIPTION OF FORMAT

The description of format found below is intended to provide the teacher with an overview of the various instructional materials used throughout this curriculum guide. These instructional materials have been color-coded for easier identification and implementation of unit activities. All teaching materials are printed on yellow paper. All appedices are printed on white paper. This curriculum is composed of the following instructional materials: 1. Information Sheets; 2. Format Sheets; 3. Individualized Learning Guide Sheets; 4. Transparency Original Sheets; 5. Reinforcement Activity Sheets; and 6. Appendices.

1. INFORMATION SHEETS: *Information Sheets* are printed on yellow paper and precede all other instructional materials. There are nine short sections to provide the instructor with needed information about bicycles. The *Information Sheets* help to prepare the instructor so that he will have the knowledge to teach and answer questions about bicycles. Before beginning instruction it is recommended that the instructor read all of the *Information Sheets*.


INFORMATION SHEET

Traffic Control Signs

STOP – Means stop. It is a white message with white border on red background. The sign is octagon in shape.

YIELD – Means slow to 15 mph or less and proceed with caution. The YIELD sign is a downward pointing, equilateral triangle having a red border band leaving a white interior with the word YIELD in red inside the border band.

WARNING – Means danger ahead, proceed with caution. Coloring and additional black symbols and the shape is a diamond.

REGULATORY – Contains a specific instruction to the driver. The signs are rectangular with black lettering on a white background.

RAILROAD – Means a railroad intersects the path. The highway sign is yellow with black lettering and a black crossbuck. The railroad crossing sign is a white crossbuck with black lettering.

SCHOOL CROSSING – Means a crossing near a school. The signs are pentagon shaped, yellow in color with a black border band, lettering and figures. The school crossing sign has the figures marching within a crossbuck, while the advance warning sign has just the figures.

GUIDE – Provides information. It is green with a white border band and lettering. For most guide signs the legend is so variable that there can be no rigid standardized size.

PASSING ZONE – Identifies the conventional ... pavement markings. The sign is pennant in shape and has black lettering and border band on a yellow background.

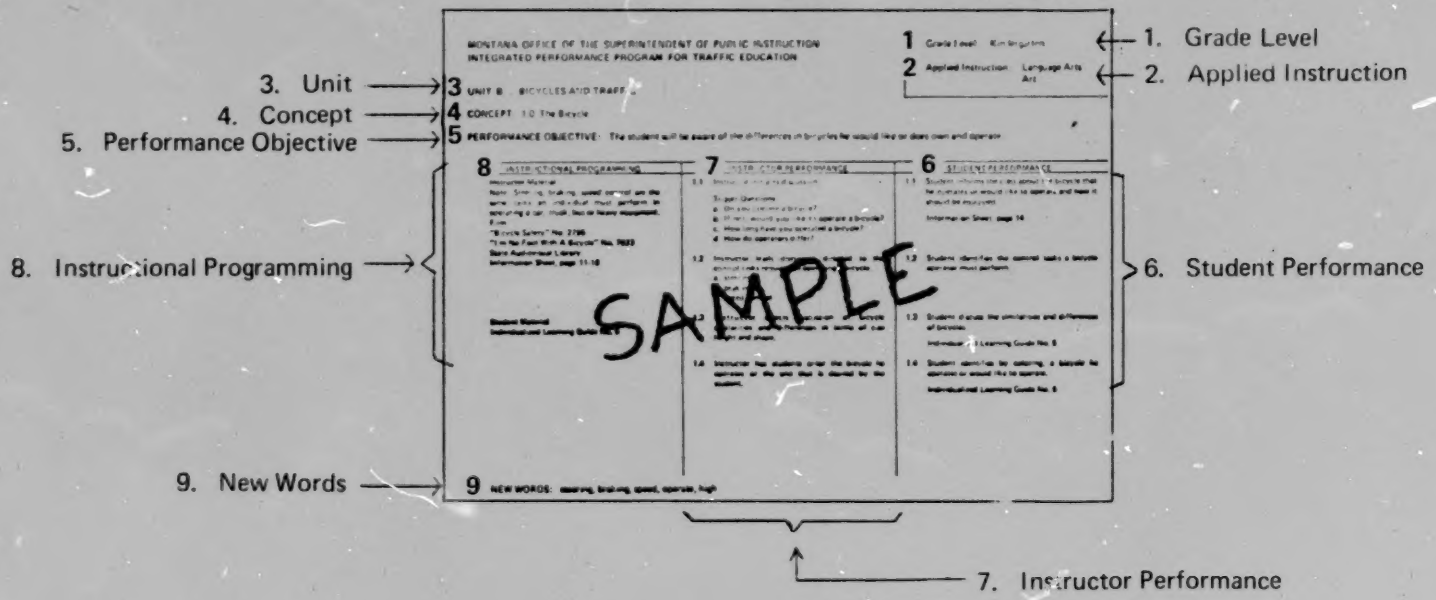
SLOW MOVING VEHICLE – The vehicle operates ... or less. It has a triangular shape with a wide red border band, orange interior and no lettering.

Standard Colors

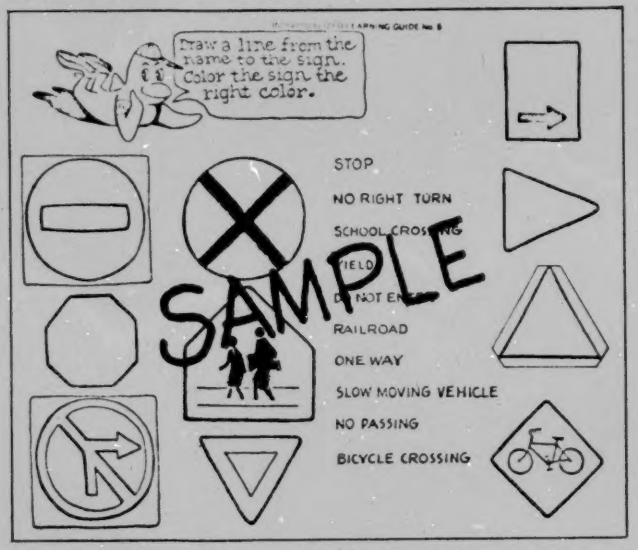
RED Stop or prohibition GREEN Indicated movements permitted, direction guidance BLUE Motorist services guidance YELLOW General warning BLACK Regulation WHITE ... regulation ORANGE Construction and maintenance warning BROWN Public recreation and scenic guidance.

SAMPLE

2. FORMAT SHEETS: *Format Sheets* are printed on yellow paper and provide the instructor with the following information: (1) Grade Level – indicates grade level for which this material is best suited; (2) Applied Instruction – indicates the subject matter in your existing curriculum that most closely applies to the specific concept being taught; (3) Unit – indicates the major topic being covered; (4) Concept – indicates a single idea to be taught; (5) Performance Objective – indicates what it is the student should know, feel, or be able to do at the completion of the instruction; (6) Student Performance Column – identifies what activity the student will be doing in order to learn the *Performance Objective*. Each student activity has a number. the first digit of that number corresponds with the *Concept* number. The second digit indicates which activity it is. This column also indicates which *Individualized Learning Guide Sheets* and *Transparency Original Sheets* are used with a particular student activity; (7) Instructor Performance Column – identifies what it is that the instructor will be doing to assist the student in achieving the *Performance Objective*. The number assigned to a specific instructor performance activity will correspond to an appropriate student performance activity; (8) Instructional Programming Column – lists the various instructional materials that a teacher can use to assist the student in learning the particular objective; (9) New Words – identifies the new safety words that are used with a particular *Concept*. This list is intended to enable the teacher to explain the words or substitute the words for something more appropriate. The new words list is not intended to be a spelling list.

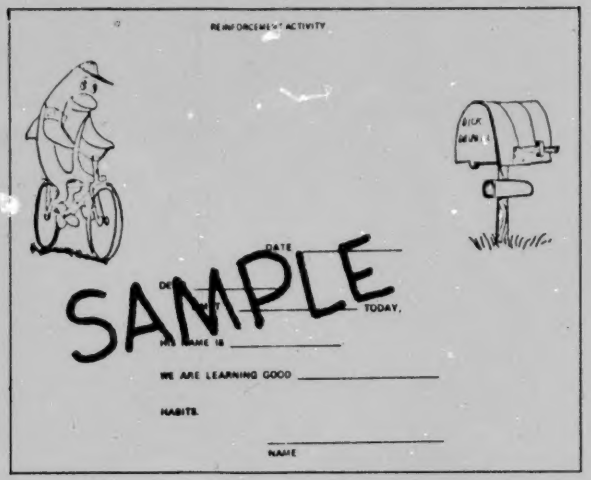


3. INDIVIDUALIZED LEARNING GUIDE SHEETS: *Individualized Learning Guide Sheets* are for use by students. They have been developed specifically to help the student do a particular activity which will allow him to achieve a specified performance objective. *Individualized Learning Guide Sheets* follow the *Format Sheet* that listed it for use as an instructional aid and can be duplicated in quantity.



4. TRANSPARENCY ORIGINAL SHEETS: *Transparency Original Sheets* are designed for reproduction into a transparency that could be used on an overhead projector.

5. REINFORCEMENT ACTIVITY SHEETS: *Reinforcement Activity Sheets* are used to explain ways in which the teacher can enrich or reinforce a learning concept.



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6. APPENDICES: *Appendices* can be found at the back of the booklet and are printed on white paper and lettered. The items found in the appendices are an array of instructional materials that could be utilized by the instructor to enhance the learning process.

Armed with this brief description of the format, we hope you will find that you can more easily use these instructional materials. Best wishes to you in your efforts to promote human preservation.

INSTRUCTOR INFORMATION

Objectives
The overall objective of this integrated approach to traffic safety is to provide a tool for instruction of students in the knowledge and skill needed to cope with the traffic environment. This program maintains a positive approach to safety and presents a "way of life," not restrictive rules in a negative approach.

Integrated
Material has been provided to integrate not add to the already existing elementary program. Although multiple activities are provided a selective approach to relevant needs of your student is encouraged.

Time
A time span is not provided because of variation and need of flexibility for the instructor. Note that format sheets do not dictate time span. The integrated approach cannot be truly utilized if a time span is dictated.

Symbols
Symbols have proven to be effective in our society (i.e., by Smokey The Bear and Woodsey Owl). You are encouraged to use the symbols (Dick Dolphin, Bicyclist; Patty Penguin, Passenger; Seemore Seal, Pedestrian) as a means of communication. The choice of symbols was made because these three animal characters are not likely to appear in an adverse situation, such as dead. Expansion is allowable to other areas of safety endeavor such as water safety. Stylization of the characters in simple lines allows a teacher and student to draw the symbols easily. The symbols are creatures which a student is not taught to stay away from and fear. We hope you will enjoy the menagerie.

Commercial Material
Commercial materials are not emphasised since most items span several grade levels. Below are listed some sources which may be helpful aids.

T–shirts can be ordered in the school's colors with one of the three characters, Dick Dolphin, Patty Penguin, Seemore Seal. Character can be printed on the front or back of shirt. The cost for a minimum of 12 is $27.00 and any over 12 is $2.25 each. Order "Traffic Characters" at The Emporium, address:

Wild West Marketing
2 West Main
Bozeman, MT 59715

State size, color and number requested.

Verses and coloring, levels K–2, request free booklets:

"Children's Safety Lessons"
Kemper Insurance
Long Grove, IL 60049

Large pages for coloring about Montana safety, levels K–2, request "Coloring Book":

Montana Highway Patrol Bureau
1014 National Avenue
Helena, MT 59601

Folder "The ABC's of Bike Riding," levels 1–2. For additional folder subjects write:

Imagination, Inc.
1821 University Avenue
St. Paul, MN 55104

Also "10 Little Bike Riders," small folder of verses.

INFORMATION SHEET

Stories and activities in "Traffic Safety Guide For Teachers," inquire at local AAA office or write:

American Automobile Association
Traffic Engineering and Safety Department
1712 G. Street N.W.
Washington, D.C. 20006

Suitable for levels 1–3.

"The Bike Book" has hints to rider and bikes available, levels 2–5, write and refer to stock No.399.91:

National Safety Council
425 North Michigan Avenue
Chicago, IL 60611

Hints and check list for proper care of bike and rules for more advanced bike drivers, levels 3–5, request "Hi! Bike Pilots!":

Safety Department
Allstate Insurance Companies
Allstate Plaza
Northbrook, IL 60062

Booklet presents compact lesson for bike behavior in cartoon fashion. Write for "Be An Expert Bike Driver," levels 4–6.

Channing L. Bete Co., Inc.
Greefield, MA 01301

Pamphlet to win the State Farm Safe Bicycling Award, levels 4–6, request at local State Farm Insurance Companies or write:

State Farm Insurance Companies
Bloomington, IL 61701

"Five Keys To Safe Bicycling" from the film "The Bicycle Driver" covers five areas to consider for being good drivers. Levels 5–6, request from:

Safeco Insurance Companies
Safeco Plaza
Seattle, WA 98185

Hints to teacher about activities, explains the why for some of the rules, suggestions for involvement, levels 4–6, inquire at local AAA office or write:

American Automobile Association
Safety Department
1712 G. Street N.W.
Washington, D.C. 20006

Request Traffic Safety Guide for Teachers.

General Map Reading Rules and the "how to" of reading maps. Levels 5–6, request Map Reading and Trip Planning Course, product No. 813, Packet of 35, shipping weight 3 lbs., cost $7.95.

Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, MO 63701

A message to Bike Riders and a safety check list, level 6:

The Texas Safety Association
1623 South Lamar Blvd.
Austin, TX 78704

For Level 6, a Bicycle Safety Information Test and Answer Sheet to be used as an aid to learning, request from:

School and College Department
National Safety Council
425 North Michigan Avenue
Chicago, IL 60611

Highlights for assisting you in the care and operation of your 10 or 5 speed bicycle. Level 6, request Schwinn Care and Operation Check List:

Schwinn Bicycle Co.
1856 North Kostner Avenue
Chicago, IL 60639

INFORMATION SHEET

General information for all levels available from:

Scott, Foresmen and Company
855 California Avenue
Palo Alto, CA 94394 (large poster with traffic signs and problem solving method);

Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, Mo 63701
(catalog for traffic education);

Kemper Insurance
Long Grove, IL 60049
(booklets);

Texas Safety Association
1623 South Lamar Blvd.
Austin, TX 78704
(general information);

Bicycle Institute of America
122 East 42nd Street
New York, N.Y. 10017
(statistics and information)

Insurance Institute for Highway Safety
1725 DeSales Street, N.W.
Washington, D.C. 20036
(general information).

Ideas

Additional popular ideas, gleaned from pilot schools, include making booklets with the Individualized Learning Guides, displaying posters in the school and in the community, and having upper grade students teach concepts to lower grade levels. Ideas contributed by teachers are incorporated in appropriate sections.

Film Library

Request all film through the Montana Audiovisual Library, Office of the Superintendent of Public Instruction, Helena, MT 59601, by title and number. Read film description and date film developed to assure current and relevant information is used.

Reinforcement Activities

Reinforcement activities to enrich and reinforce concepts are included for your selective use.

Problem Solving Method

A systematic process of identifing, predicting, deciding and acting, when confronted with a potentially dangerous situation, is essential to a student. A student must first identify the hazard, predict what will occur if certain actions are taken or not taken and then by calling on stored memory of past experience or knowledge, correctly decide on an appropriate action. Finally, he must act or react to successfully manage the encounter. These situation occur as a student crosses intersections, rides in the family car or on the school bus. They occur in the school and home environment, on the playground, and when riding bicycles or motor equipment.

Although information is received through all of the senses the greatest percent is preceived through vision. It is therefore essential to teach perception.

Visual perception is identifing, "mental decoding" of the information is predicting and deciding, then appropriate action can be taken.

In the early grade levels predicting is a difficult concept but not impossible. For some students identify, decide and act will provide a short version of the process.

Survival in many situations can depend on a problem solving method and it is the responsibility of the instructor to provide methods to the students. IPDA is a viable method in traffic education as well as in simple decisions.

Helpful aid: "Problem Solving In Everyday Safety"
A 92 transparency program in nine teaching units on Safety Education. Teaches safety consciousness as a frame of mind and mode of behavior. Most important the student is the one who arrives at the solution because he solves the problem himself. Distributed by:

Bumpa-Tel, Inc.,
P.O. Box 611
Cape Girardeau, MO 63701
Cost: $99.95 for complete set.

Montana Motor Vehicle Code "Rules of the Road" that affect bicyclists as of July 1, 1974 are listed below.

32–2184. EFFECT OF REGULATIONS. (a) It is a misdemeanor for any person to do any act forbidden or fail to perform any act required in this article (32–2184 to 32–2190).

(b) These regulations applicable to bicycles shall apply whenever a bicycle is operated upon any highway or upon any path set aside for the exclusive use of bicycles subject to those exceptions stated herein.

32–2185. TRAFFIC LAWS APPLY TO PERSONS RIDING BICYCLES. Every person riding a bicycle upon a roadway shall be granted all of the rights and shall be subject to all of the duties applicable to the driver of a vehicle by this act, except as to special regulations in this article (32–2184 to 32–2190) and except as to those provisions of this act which by their very nature can have no application.

32–2186. RIDING ON BICYCLES. A person propelling a bicycle shall not ride other than upon or astride a permanent and regular seat attached thereto.

32–2187. CLINGING TO VEHICLES. No person riding upon any bicycle, coaster, roller skates, sled, or toy vehicles shall attach the same or himself to any vehicle upon a roadway.

32–2188. RIDING ON ROADWAYS AND BICYCLE PATHS. (a) Every person operating a bicycle upon a roadway shall ride as near to the right side of the roadway as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction.

(b) Persons riding bicyles upon a roadway shall not ride more than two (2) abreast except on paths or parts of roadways set aside for the exclusive use of bicycles.

(c) Whenever a usable path for bicycles has been provided adjacent to a roadway, bicycle riders shall use such path and shall not use the roadway.

32–2189. CARRYING ARTICLES. No person operating a bicycle shall carry any package, bundle, or article which prevents the driver from keeping at least one (1) hand upon the handle bars.

32–2190. LAMPS AND OTHER EQUIPMENT ON BICYCLES. (a) Every bicycle when in use at nighttime shall be equipped with a lamp on the front which shall emit a white light visible from a distance of at least five hundred (500) feet to the front and with a red reflector on the rear of a type approved by the board which shall be visible from all distances from fifty (50) feet to three hundred (300) feet to the rear when directly in front of lawful upper beams of head lamps on a motor vehicle. A lamp emitting a red light visible from a distance of five hundred (500) feet to the rear may be used in addition to the red reflector.

(b) Every bicycle shall be equipped with a brake which will enable the operator to make the braked wheels skid on dry, level, clean pavement.

Be sure to check city ordinances for local laws.

Bicycle Size

For safety, a student's bicycle must be the right size. If the bike is too large or too small, it will be hard to control and will make the rider tired much more quickly.

If the bicycle is too large, it will sway from side to side and the rider can't come to a stop without leaning to one side. If it is too small, the rider will bump his knees and the bike will be difficult to steer.

Also, bicycling is easier and more fun if the leg muscles can be flexed fully. The muscles won't tire as easily as when the muscle doesn't get fully extended.

Measure the distance from the child's crotch to the floor while wearing flat heeled shoes to see what size bike a child needs. If the leg length is between 29½ and 35 inches, a 19" frame is recommended. From 35" to 38", a 23" or 24" frame is recommended. Above 38", an adult's bike (26" or more) can be ridden.

When buying a bike, one should also check for accessories. The reflector should be seen from at least 300 feet. The front light should be white and be visible at least 500 feet away. The horn or bell should be audible at least 100 feet away. There should be a carrier or basket according to needs. There should be a mud guard and a proper chain guard.

Stopping

Bicycles equipped with front wheel caliper brakes, common for high rise bicycles, can be stopped in a shorter distance than bicycle with rear coaster brakes, typical of conventional models. The data available indicates that with caliper brakes, stopping distances increase with rider weight. No such variation is found with coaster brakes. Rear coaster brakes and rear caliper brakes are equally effective in panic stops.

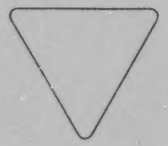
Generally, hard rear wheel braking is much more easily handled by the experienced driver than front wheel braking.

When the operator stands upright on the pedals, hard front wheel braking can lead to forward pitch-over of the rider. When this occurs, the motion is so rapid that there is little that the unsuspecting rider, even a very experienced one, can do to avoid a bad fall. Findings show that as long as the rider remains seated, on either type of bicycle, a potentially injurious pitch-over could not be induced with either bicycle. On dry, level asphalt, the test rider was able to make both bicycles pitch-over by standing on the pedals and applying hard front wheel braking. On a polished concrete surface, only the high rise bicycle could be made to pitch-over.

The bicycle must have a brake that takes hold quickly and makes the rear wheel skid on a dry, clean, level pavement. The arm of the coaster brake must be firmly attached to the frame; otherwise, braking power is lost. The brake pads on bicycles should be inspected weekly for wear and proper positioning. Brake cables should be checked for wear, fraying, and binding. Caliper brakes lose their efficiency when wet. Extreme caution must be exercised when riding in wet weather or in areas where heavy dew or puddles might wet the pads and rims.

Traffic Control Signs

STOP – Means stop. It is a white message with white border on red background. The sign is octagon in shape.



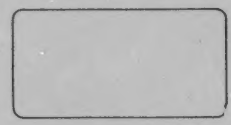
YIELD – Means slow to 15 mph or less and proceed with caution. The YIELD sign is a downward pointing, equilateral triangle having a red border band leaving a white interior with the word YIELD in red inside the border band.

WARNING – Means danger ahead, proceed with caution. Coloring is traditionally black on yellow and the shape is diamond.

REGULATORY – Contains a specific instrution to the driver. The signs are rectangular with black lettering on a white background.

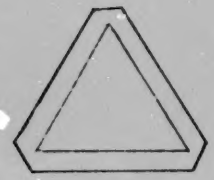
RAILROAD – Means a railroad intersects the path. The highway sign is yellow with black lettering and a black crossbuck. The railroad crossing sign is a white crossbuck with black lettering.

SCHOOL CROSSING – Means a crossing near a school. The signs are pentagon shaped, yellow in color with a black border band, lettering and figures. The school crossing sign has the figures walking within a crosswalk while the advance warning sign has just the figures.



GUIDE – Provides information. It is green with a white border band and lettering. For most guide signs the legend is so variable that there can be no rigidly standardized size.

NO PASSING ZONE – Identifies the conventional no passing pavement markings. The sign is pennant in shape and has black lettering and border band on a yellow background.



SLOW MOVING VEHICLE – The vehicle operates at 25 mph or less. It has a triangular shape with a wide red border band, orange interior and no lettering.

Standard Colors

RED: Stop or prohibition. GREEN: Indicated movements permitted, direction guidance. BLUE: Motorist services guidance. YELLOW: General warning. BLACK: Regulation. WHITE: Regulation. ORANGE: Construction and maintenance warning. BROWN: Public recreation and scenic guidance.

Traffic Control Signals

Each traffic signal has a specific meaning for the bicycle operator.

GREEN LIGHT – indicates that the bicyclist may proceed if the way is clear.

RED LIGHT – indicates that the bicyclist is to stop.

YELLOW LIGHT – is a caution light indicating that the bicyclist is not to proceed through the intersection until the light turns green, unless already in or very near to the intersection when the light turned yellow.

GREEN ARROW – indicates that the bicyclist may proceed cautiously in the direction that the arrow is pointing.

FLASHING RED LIGHT – indicates that the bicyclist is to come to a complete stop and then proceed if the way is clear.

FLASHING YELLOW LIGHT – indicates that the bicyclist is to reduce his speed and then proceed with caution.

Traffic Control Markings

Markings have definite and important functions to perform in a proper scheme of traffic control. In some cases, they are used to supplement the regulations or warnings of other devices such as traffic signs and signals.

Pavement markings have definite limitations. They are obliterated by snow, may not be clearly visible when wet, and may not be very durable when subjected to heavy traffic.

Longitudinal pavement marking color use is as follows: Yellow lines delineate the seperation of traffic flows in opposing direction or mark the left boundary of the travel path at locations of particular hazard. White lines delineate the seperation of traffic flows in the same direction. Red markings delineate roadways that shall not be entered or used by the viewer of those markings.

Broken lines are permissive as opposed to solid lines being restrictive in character. Width of lines indicates the degree of emphasis. Double lines indicate maximum restrictions.

Curbs painted red or yellow indicate no parking.

Horizontial pavement markings serve as a guide for pedestrians. At non-intersectional locations, these markings legally establish the crosswalk. Horizontal line may also indicate a stop line to the bicyclist.

Other markings may indicate a railroad crossing, directional arrows and word markings.

Hand Signals

The use of hand signals now is commonly accepted as a safe riding practice. The motor vehicle laws of Montana require such signals. Signaling intention to turn, slow down, or stop gives the motorist behind, as well as the one approaching, an opportunity to anticipate the cyclist's movement. The bicycle operator should signal well in advance so that both hands are on the handlebars when the maneuver is made. This is especially important when the bicycle is equipped with hand brakes. Since all signals are made with the left hand, it is important that the control for the rear brake is located on the right handlebar. It is a simple matter to switch the brake control if necessary. Unless local regulations differ, standard hand signals are as follows: Left turn–hand and arm extended horizontally; Right turn–hand and arm extended upward; Stop and/or slow–hand and arm extended downward.

In order to turn left at intersections in the business area or where there is heavy or high-speed vehicular traffic, a bicyclist should dismount and follow the pedestrian crosswalk to the far right corner, then proceed across at right angles. In this way, he crosses one direction of traffic at a time. He should avoid heavily traveled routes if others are available. If riding on the sidewalk is allowed by ordinance, or if the driver is too young to be allowed in traffic, care should be taken when riding on the sidewalk to avoid striking or alarming pedestrians.

Skills

It is imperative that the cyclist develop skill in balancing and pedaling to avoid swerving into traffic, running off the edge of a sidewalk or highway, and to avoid hitting a pedestrian or fixed object at a narrow passing. Parents have a responsibility to be sure the child has the skill to cope with traffic before permitting him to drive on the street. Learners should be taught to coast with the pedals level (horizontal) in readiness to apply the brakes, and to avoid scraping the lower pedal on turns.

When overtaking slow moving vehicles, a cyclist must be careful to avoid being struck or crowded by vehicles about to turn into a driveway or alley. The cyclist must be especially alert, when passing parked cars, for doors which might be opened in his path.

Parked cars with someone in the driver's seat should be given as wide a berth as possible. A cyclist should never ride into the roadway from the yard, driveway or alley without looking carefully in all directions.

It is highly desirable to remain inside the car during an automobile collision. Not so with a bicycle. The rider has to free himself from the bicycle immediately when a collision appears imminent. Design features that can be impacted by the rider or hinder his ability to free himself, such as high rise handlebars and gear-shift levers, should be avoided. The horizontal frame member in front of the rider on all boys' bicycles tends to make it more difficult for the rider to free himself from the bike. Therefore, learners and novice riders should use girls' style bicycles since they are easier to dismount in case of a collision.

Carrying more passengers than the bicycle is designed and equipped for is dangerous. Passengers obstruct the driver's vision, make balancing difficult, and increase the danger of getting part of the body or clothing caught in the spokes. Two on a bicycle also greatly increases the stopping distance. The "polo" or "banana" seat on the high rise bicycle appears to be designed to carry two; however, such is not the case.

All human activity involves a degree of risk. What becomes important then is instilling in student a personal and social attitude toward their choices of action in traffic interaction. For this reason, at every age, the students are encouraged to consider the consequencies.

The primary consideration becomes how much risk a person is ready to accept in his life style.

Intersections

CONTROLLED – (a) If more than one vehicle operator arrives at a four-way stop at the same time, give the driver on the right the right-of-way, but only after they have come to a full stop. Courtesy dictates which driver proceeds.

(b) If only one of the crossroads has a stop sign, the driver in that lane must stop, then yield to all other vehicles and pedestrians.

(c) If there is a red light or stop sign, the bicyclist should stop behind the white line or marked or unmarked crosswalk.

UNCONTROLLED – (a) When two bicyclists arrive at an uncontrolled intersection at about the same time, the bicyclist on the left must yield the right-of-way to the driver on the right.

(b) The bicyclist should never enter the intersection until it is safe to enter.

(c) The bicyclist should yield the right-of-way to pedestrians that are in the crosswalk.

(d) The bicyclist should never make a turn in front of a moving vehicle.

20

Facts

For the five years, 1965-69, only one year,1967, shows an even division between urban and rural areas for bicycle-motorcar fatalities; for the other four years, somewhat more than half occurred in rural areas (defined as having less than 2,500 inhabitants, except those areas classified "urban" by the U.S. Census Bureau).

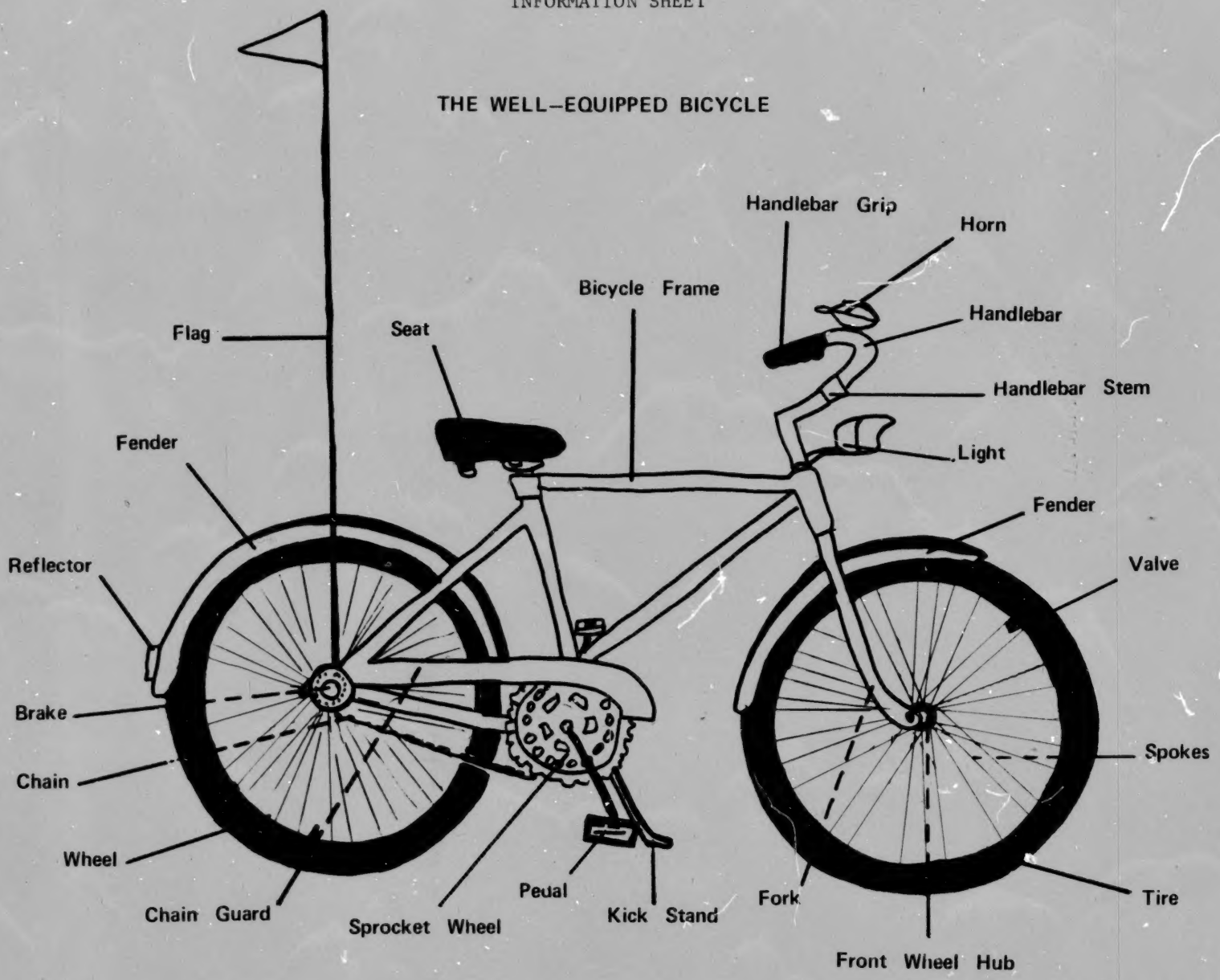
Nonfatal accidents are more likely to occur in residential areas (city streets), while fatal accidents are most likely to occur in open country (major and minor roads). This is probably related to the higher speeds of motorcars outside the city or town. Compared with all fatal motor vehicle accidents, fatal bicycle accidents show a larger proportion occurring where there is some kind of intersection of vehicle pathways. This is also true of nonfatal accidents.

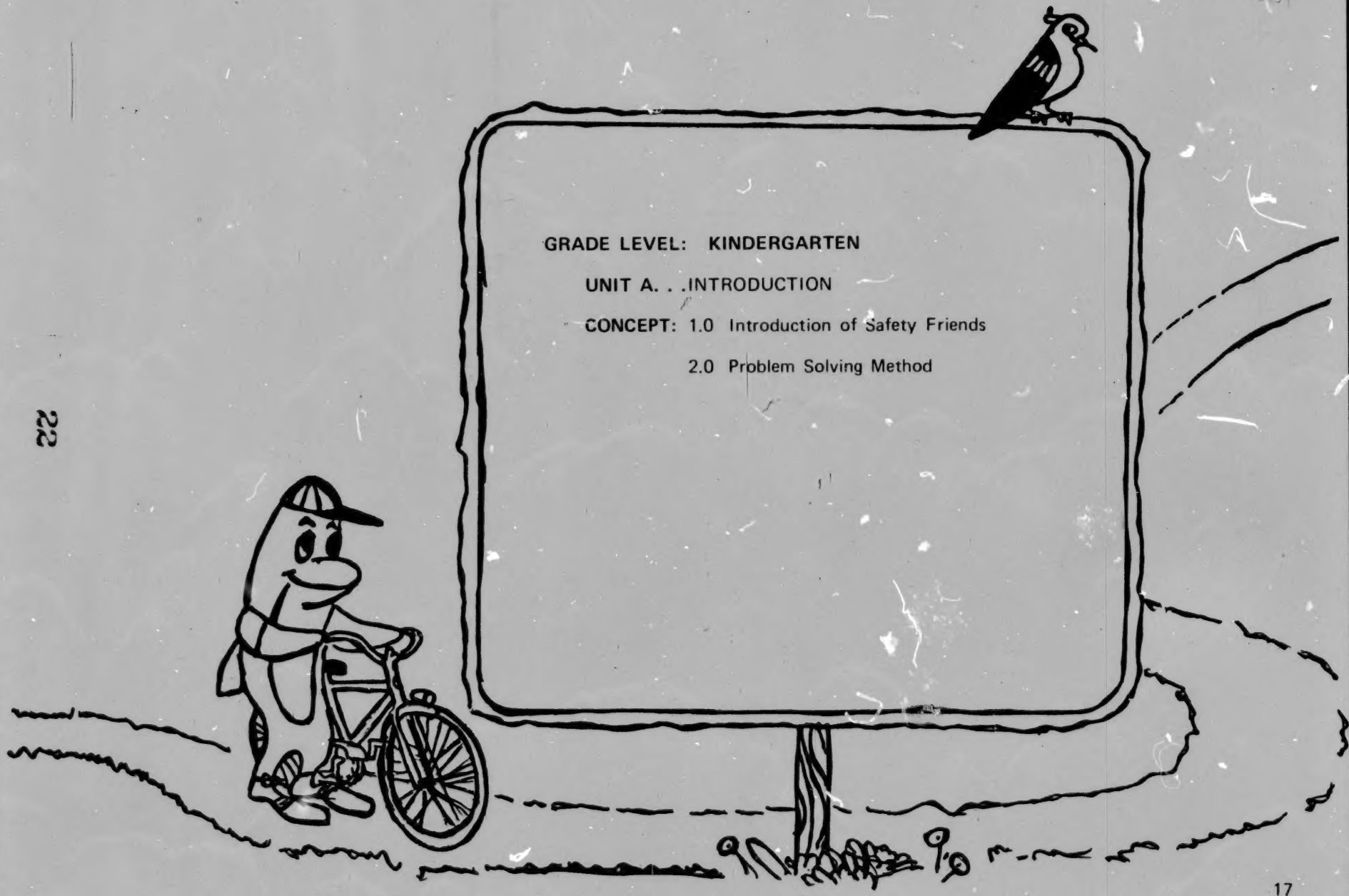
One study found 96% of all bicycle-motorcar collisions occurred within one mile from home, and 57% within one block; also, intersections of some kind were the most frequent site of collisions: ". . . 82% of collisions relate to maneuvers by the bicyclist to enter into, to turn across, or cross through a flow of traffic."

In two studies, about 40% of the cyclists of grade-school age, said they ride on the right side of the street, 40–50% said they ride on both sides, and 10–15% said they ride on the left side. Some ride on the sidewalk. Apparently, there is some confusion, lack of knowledge, or disregard with respect to rules and regulation of safe operating procedures.

*Bicycle fatalities will exceed 10,000 in 1974.
*Ninety-percent of bicyclist fatalities due to bicycle-car collisions are males.
*In a study of 275 collisions with cars, 93% involved male bicylcists.
*In a 5 year study, over 60% of the bicycle-car fatalities and 75% of the injuries were in the age group of five through fourteen.
*After school and early evening hours are the peak periods for collisions.
*In a great number of bicycle-car collisions, the driver of the car is not cited for a violation.
*Twenty-percent of the bicycle collisions with cars involved a passenger or a hand-held load.
*It has been pointed out, many bicyclists were not riding their own bicycle.

THE WELL–EQUIPPED BICYCLE




GRADE LEVEL: KINDERGARTEN
UNIT A. . .INTRODUCTION
CONCEPT: 1.0 Introduction of Safety Friends
2.0 Problem Solving Method

22

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Kindergarten

Applied Instruction: Language Arts
Art
Social Studies

UNIT A. . .INTRODUCTION

CONCEPT: 1.0 Introduction of Safety Friends

PERFORMANCE OBJECTIVE: The student will identify the name and activity used by each of the safety friends.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 7 **Student Material** Transparency Original No. 1-3 Individualized Learning Guide No. 2 **Reinforcement Activity** Student can make a very large lifelike cutout of new friend. See appendix C. Letter to parents, page 22.	1.1 Instructor/student will discuss the safety friends and the activity they are involved in. **Trigger Question** a. What is a friend?	1.1 Student will identify Dick Dolphin and determine the involvement of Dick Dolphin as a friend learning about bicycle operation. Transparency Original No. 1-3 Individualized Learning Guide No. 2

NEW WORDS: friend, safety, mile, pedestrian, passenger, bicyclist, operator

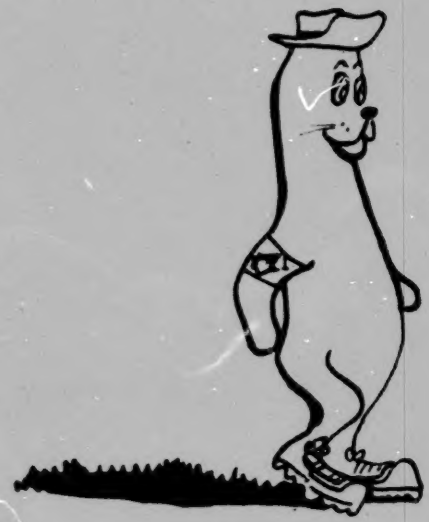
CAN YOU GUESS MY NAME?

DICK
SEEMORE
PATTY

I AM PATTY PENGUIN,
I RIDE IN A CAR.

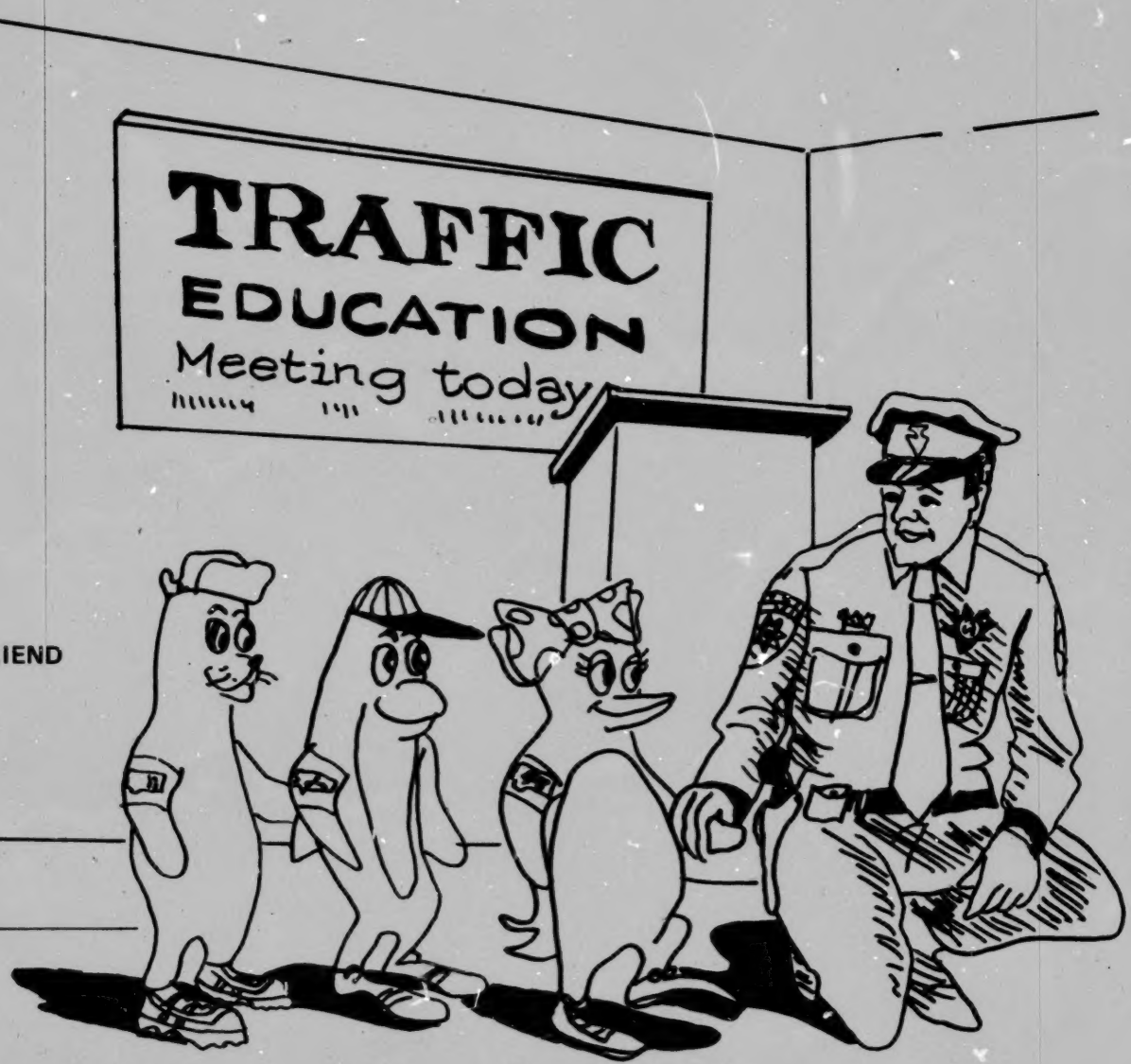
SEEMORE
DICK
PATTY

I AM DICK DOLPHIN,
I OPERATE A BICYCLE.



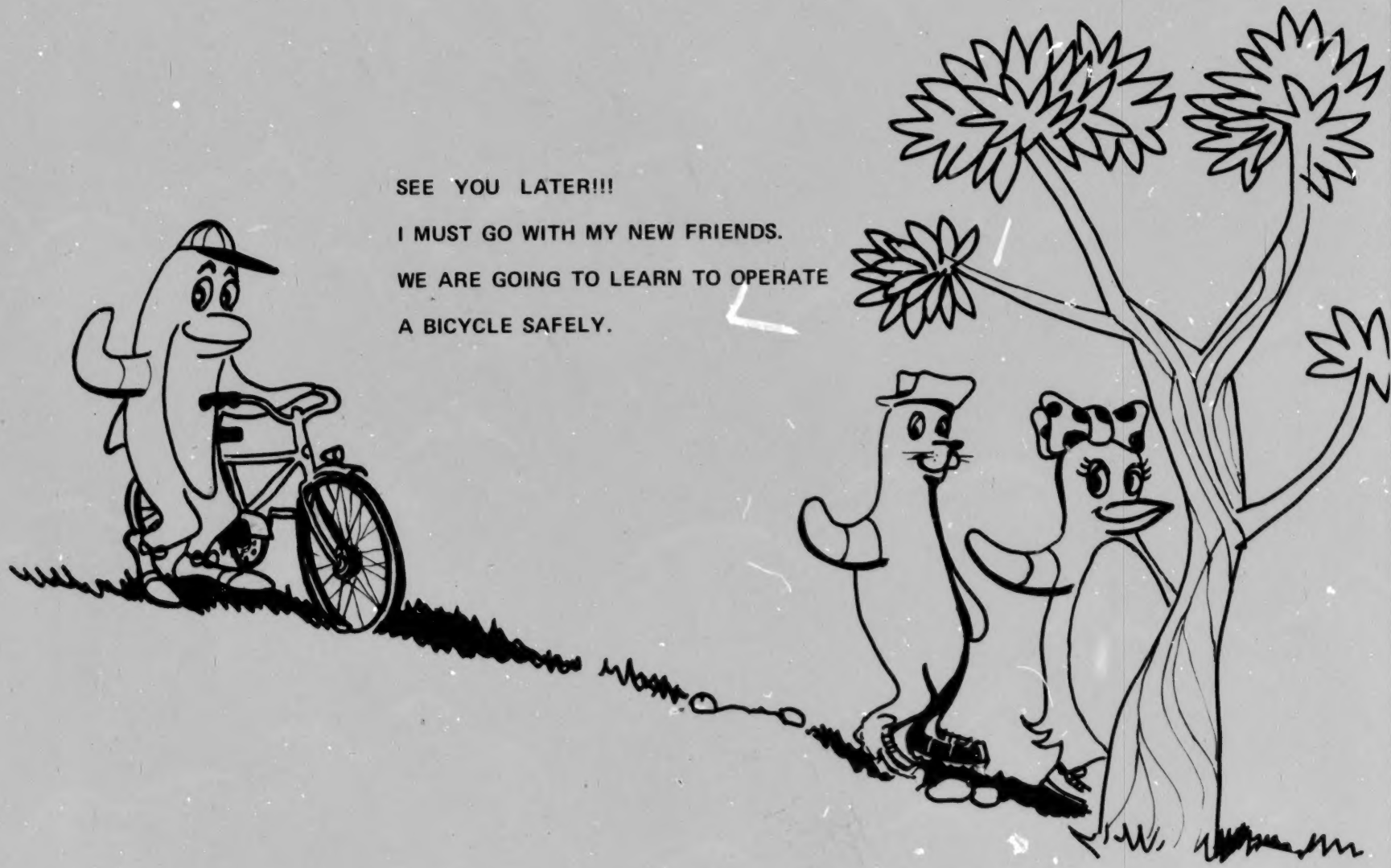
PATTY
SEEMORE
DICK

I AM SEEMORE SEAL,
I WALK WITH MY FRIEND.

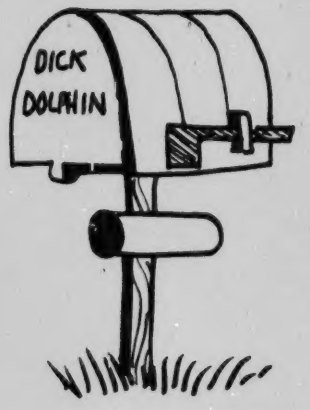


A FRIEND

Colored by _____


SEE YOU LATER!!!
I MUST GO WITH MY NEW FRIENDS.
WE ARE GOING TO LEARN TO OPERATE
A BICYCLE SAFELY.

REINFORCEMENT ACTIVITY



DATE _____

DEAR _____,

I MET A DOLPHIN TODAY,

HIS NAME IS DICK. HE IS

GOING TO HELP ME LEARN GOOD

GOOD BICYCLING.

_____

NAME

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Kindergarten

Applied Instruction: Language Arts
Math

UNIT A. . .INTRODUCTION

CONCEPT: 2.0 Problem Solving Method

PERFORMANCE OBJECTIVE: The student will understand the Identify, Decide and Act problem solving method.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: This formula is valuable in all basic thinking processes. For this level explain it as: IDENTIFY – See and/or hear traffic. DECIDE – Know what to do. ACT – Do. The complete formula for this problem solving method is Identify the problem or situation; Predict what might happen; Decide what course of action to take; Act – take effective action immediately. Information Sheet, page 9 "Problem Soving" **Student Material** Transparency Original No. 4 **Reinforcement Activity** Relate situations to the student which occur in the area around the school, that can be used in the problem solving method.	2.1 Instructor explains the Identify, Decide and Act problem solving method.	2.1 Student will learn to use the problem solving method of Identify, Decide and Act. Transparency Original No. 4

NEW WORDS: habits, identify, decide, act

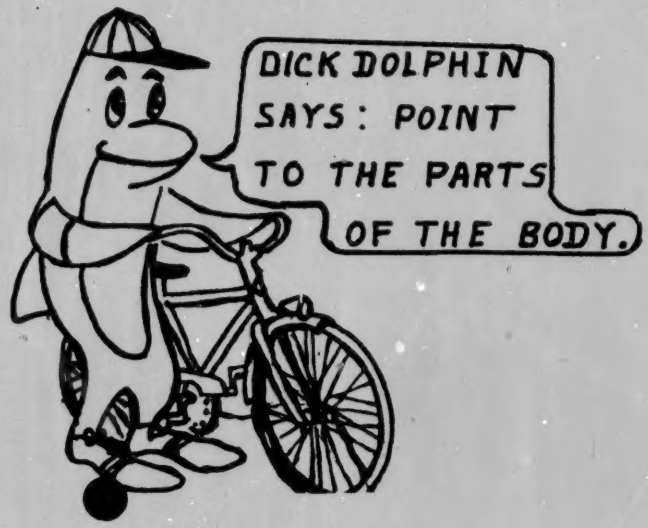
I use my 2 - and 2 -

to IDENTIFY traffic

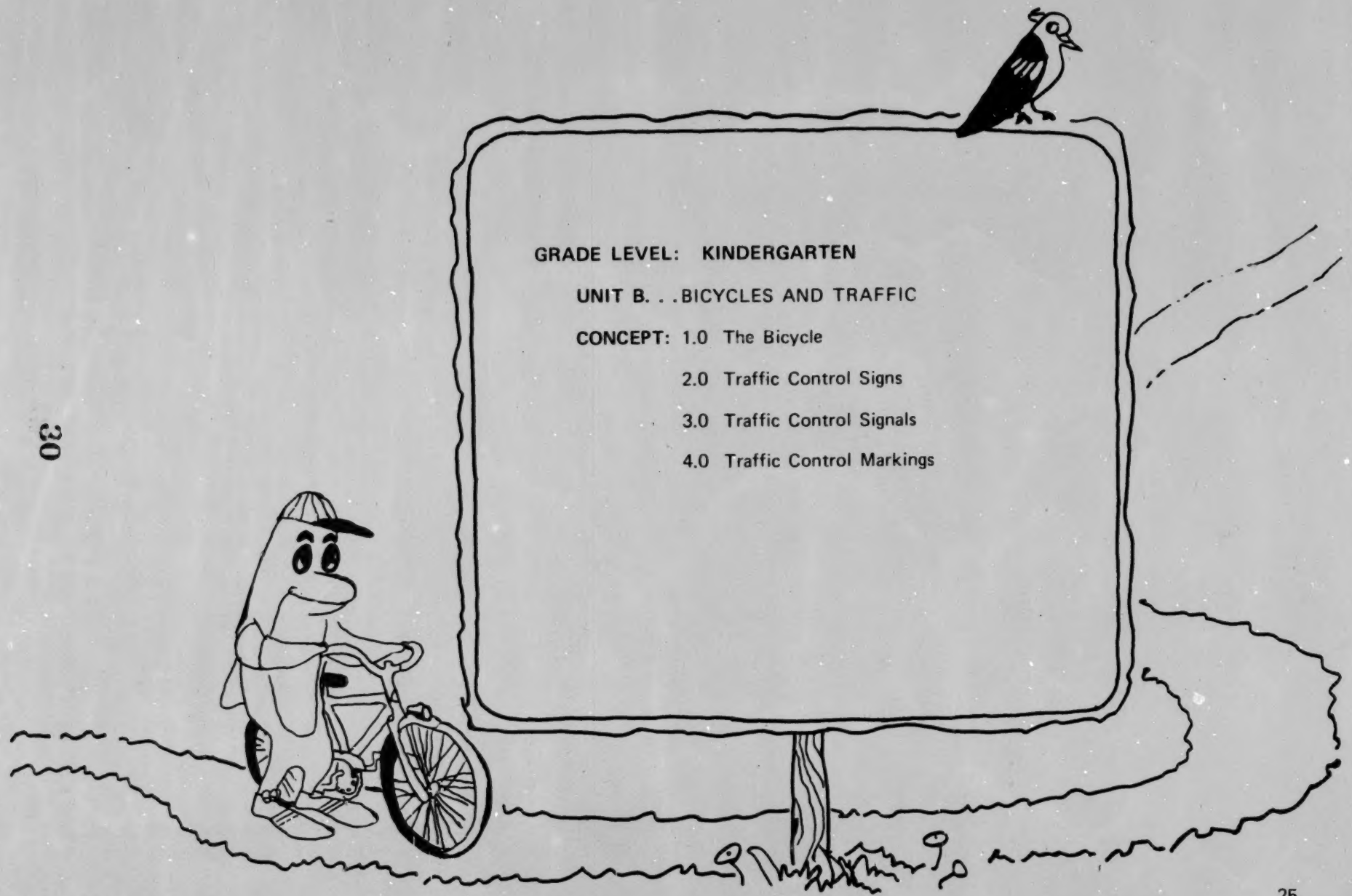
I use my 1 -

to DECIDE what to do

I use my 2 - and 2 -



to DO right on my bike.



GRADE LEVEL: KINDERGARTEN

UNIT B. . .BICYCLES AND TRAFFIC

CONCEPT: 1.0 The Bicycle

2.0 Traffic Control Signs

3.0 Traffic Control Signals

4.0 Traffic Control Markings

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Kindergarten

Applied Instruction: Language Arts
Art

UNIT B. . .BICYCLES AND TRAFFIC

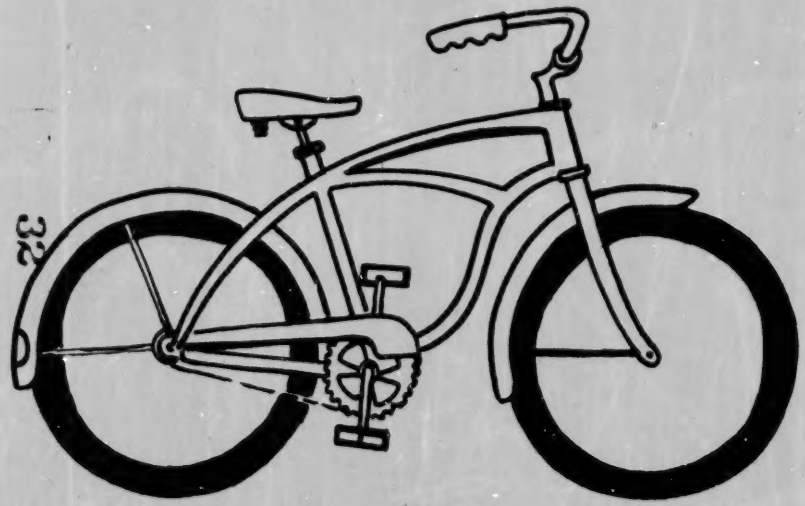
CONCEPT: 1.0 The Bicycle

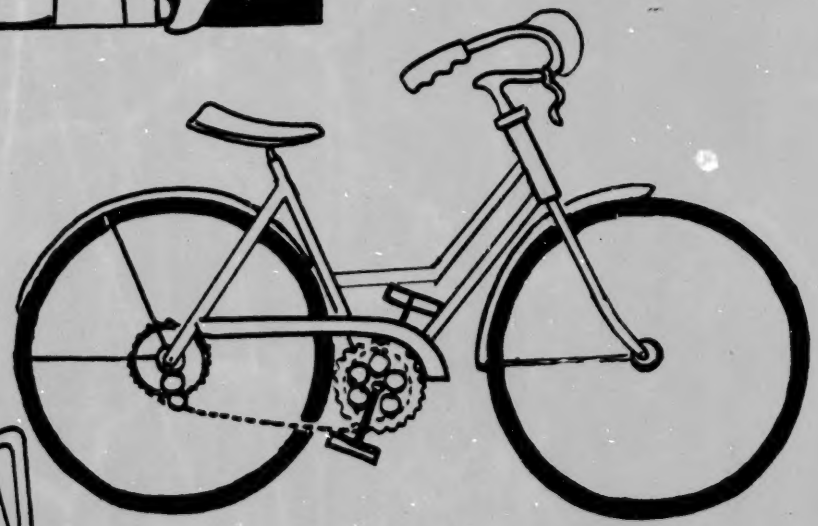
PERFORMANCE OBJECTIVE: The student will be aware of the differences in bicycles he would like or does own and operate.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: Steering, braking, speed control are the same tasks an individual must perform in operating a car, truck, bus or heavy equipment. Film: "Bicycle Safety" No. 2795 "I'm No Fool With A Bicycle" No. 7823 State Audiovisual Library Information Sheet, page 11-16	1.1 Instructor initiates discussion. **Trigger Questions** a. Do you operate a bicycle? b. If not, would you like to operate a bicycle? c. How long have you operated a bicycle? d. How do operators differ?	1.1 Student informs the class about the bicycle that he operates or would like to operate and how it should be equipped. Information Sheet, page 14
	1.2 Instructor leads discussion directed to the control tasks required in operating a bicycle. a. steering b. braking c. speed control	1.2 Student identifies the control tasks a bicycle operator must perform.
Student Material Individualized Learning Guide No. 5	1.3 Instructor directs discussion of bicycle similarities and differences in terms of size height and shape.	1.3 Student discuss the similarities and differences of bicycles. Individualized Learning Guide No. 5
	1.4 Instructor has students color the bicycles they operate or the one that is desired by the student.	1.4 Student identifies by coloring, a bicycle he operates or would like to operate. Individualized Learning Guide No. 5

NEW WORDS: steering, braking, speed, operate, high

Choose and color the bicycle you have, or would like to have!





MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Kindergarten

Applied Instruction: Physical Education
Mathematics
Art

UNIT B. . .BICYCLES AND TRAFFIC

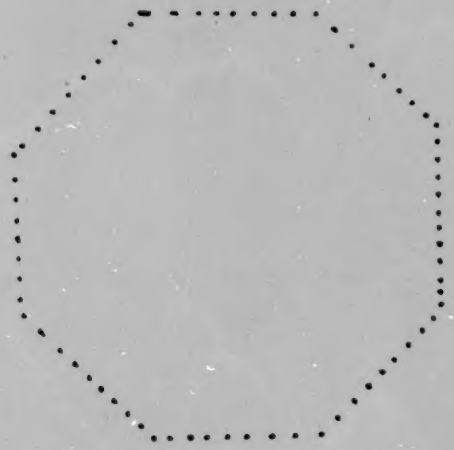
CONCEPT: 2.0 Traffic Control Signs

PERFORMANCE OBJECTIVE: The student will recognize and respond correctly to basic signs.

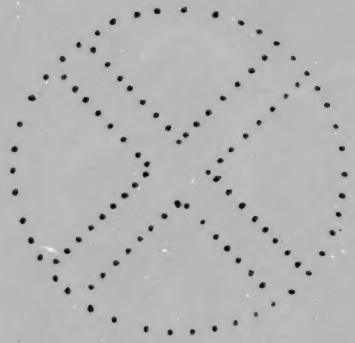
INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet: traffic control signs, page 12. See appendices for traffic controls, page F-L.	2.1 Instructor explains shape and color significance by use of traffic control cutout signs of stop, yield, warning, regulatory and RR crossing.	2.1 Student recognizes shape and color of five basic signs: stop, yield, warning, regulatory, RR crossing. Individualized Learning Guide No. 6
	2.2 Instructor places the cutout signs at appropriate points in the classroom to enable student to learn the proper reaction to traffic signs, or create a traffic board.	2.2 Student demonstrates his knowledge of signs by moving around the classroom, observing signs posted or displayed on traffic board.
Student Material Individualized Learning Guide No. 6		
Reinforcement Activity Traffic board, page 30		

NEW WORDS: yield, regulatory, triangle, diamond, oblong, circle, sign

TRACE AND COLOR THE SIGNS.



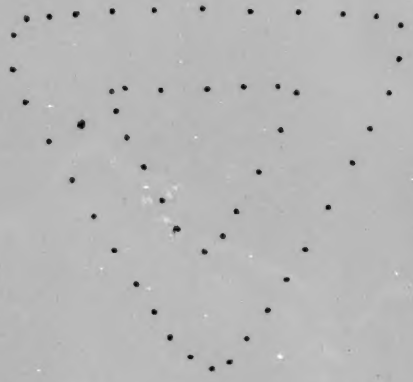
STOP – Red



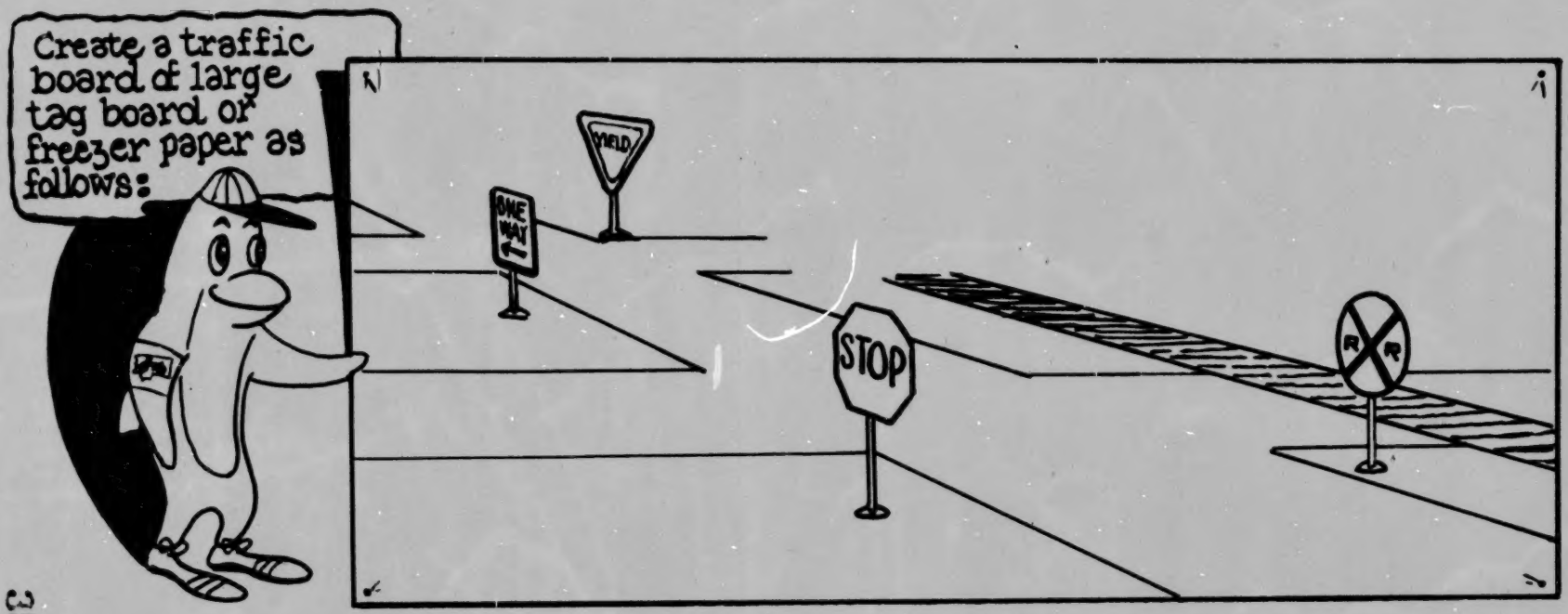
RAILROAD CROSSING
Yellow with a black cross

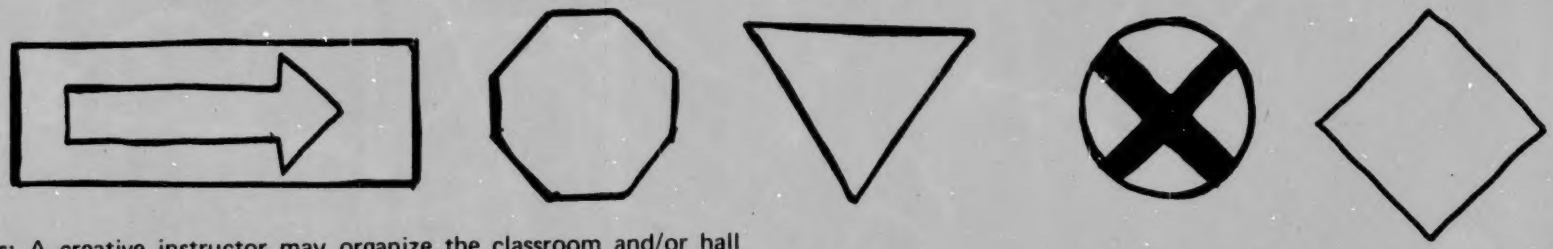
DO NOT ENTER – White

SCHOOL CROSSING – Yellow



YIELD – Yellow





Classroom signs: A creative instructor may organize the classroom and/or hall traffic with traffic signs i.e.: large signs are in appendices.

REGULATORY CAN BE POSTED ON STAIRS	STOP CAN BE PLACED AT HALL INTERSECTIONS	YIELD CAN BE POSTED ON BLIND CORNERS	RR SIGN CAN BE PLACED AT LUNCH LINES	WARNING CAN BE PLACED PRIOR TO HALL INTERSECTIONS

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Kindergarten

Applied Instruction: Language Arts
Art

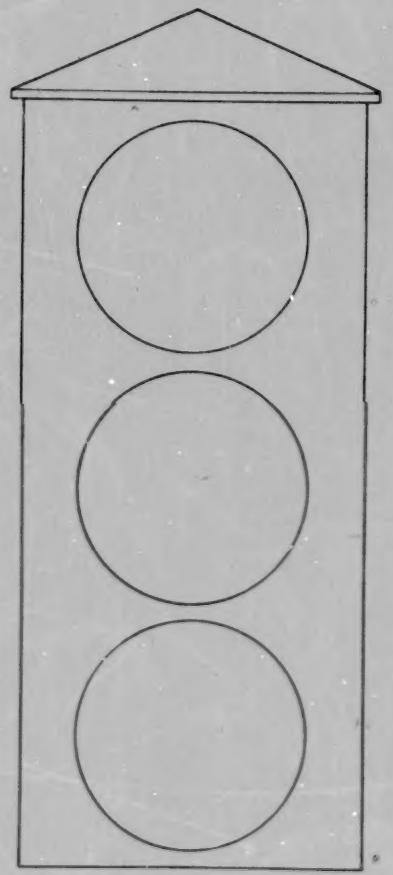
UNIT B. . .BICYCLES AND TRAFFIC

CONCEPT: 3.0 Traffic Control Signals

PERFORMANCE OBJECTIVE: The student will identify by color and location the meaning of traffic signals.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: Emphasis should be placed on making sure student realizes that other drivers may not obey signals. Primary colors can be introduced. Information Sheet, page 13	3.1 Instructor focuses upon the conditions requiring traffic signals to regulate all types of traffic. 3.2 Instructor/student discuss the various locations of traffic signals at intersections and on roadways. 3.3 Instructor encourages the student to color the traffic signals.	3.1 Student identifies a traffic signal. Individualized Learning Guide No. 7 3.2 Student determines the location and function of traffic signals. 3.3 Student identifies the meaning of the various colors on the traffic signal. Individualized Learning Guide No. 7
Student Material Individualized Learning Guide No. 7 **Reinforcement Activity** Make a signal traffic control, page 33		

NEW WORDS: traffic light, roadway, intersection, location, red, yellow, green



A POEM

THE TRAFFIC LIGHT*

THE TRAFFIC LIGHTS WE SEE AHEAD
ARE SOMETIMES GREEN,
AND SOMETIMES RED.

RED ON TOP,
AND GREEN BELOW.

RED MEANS STOP.
AND GREEN MEANS GO.

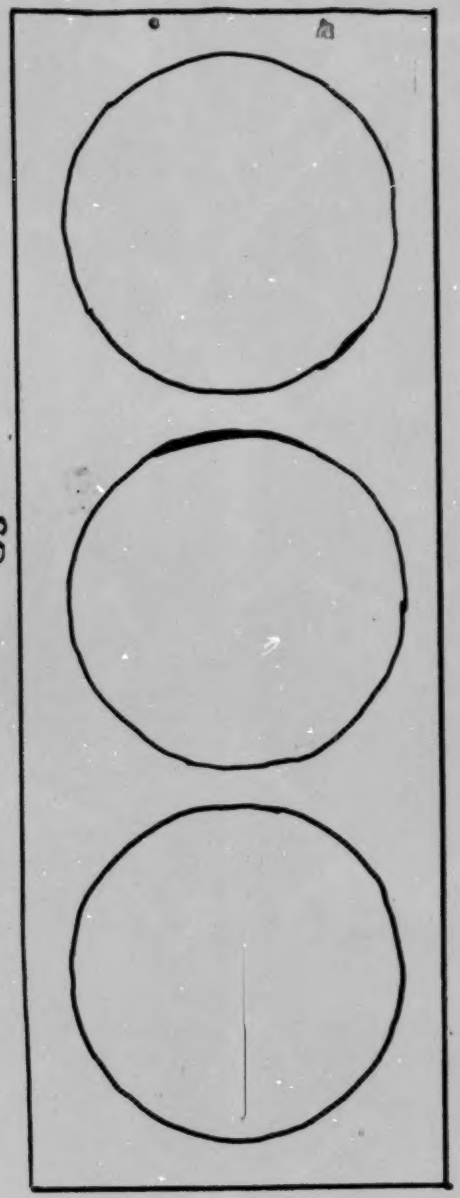
RED ON TOP - STOP, STOP, STOP.
GREEN BELOW - LOOK LEFT AND RIGHT,
BEFORE YOU GO.

*AUTHOR UNKNOWN

Colored by _____

REINFORCEMENT ACTIVITY

MODEL TRAFFIC LIGHT



Cut three large holes in the side of a half-gallon milk carton. Cover the top hole with *red* cellophane or tissue. Cover the middle hole with *yellow*, and the bottom hole with *green*. Cut a hole in the opposite side of the carton so the cellophane circles can be illuminated from behind with a flashlight. Insert a cardboard mailing tube in the base for a stand. Children take turns operating the traffic light with a flashlight.

DICK DOLPHIN:

HE IS VERY BRIGHT.

WHEN THE LIGHT TURNS RED–
STOP! HE USES HIS HEAD.

WHEN THE LIGHT TURNS YELLOW–
WAIT! BE A CAREFUL FELLOW.

GREEN LIGHT – LOOK LEFT AND RIGHT
AND BE SURE IT'S CLEAR,
SO YOU CAN CROSS WITHOUT ANY FEAR.

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Kindergarten

Applied Instruction: Language Arts

UNIT B. . .BICYCLES AND TRAFFIC

CONCEPT: 4.0 Traffic Control Markings

PERFORMANCE OBJECTIVE: The student will recognize lane markings and proper lane placement.

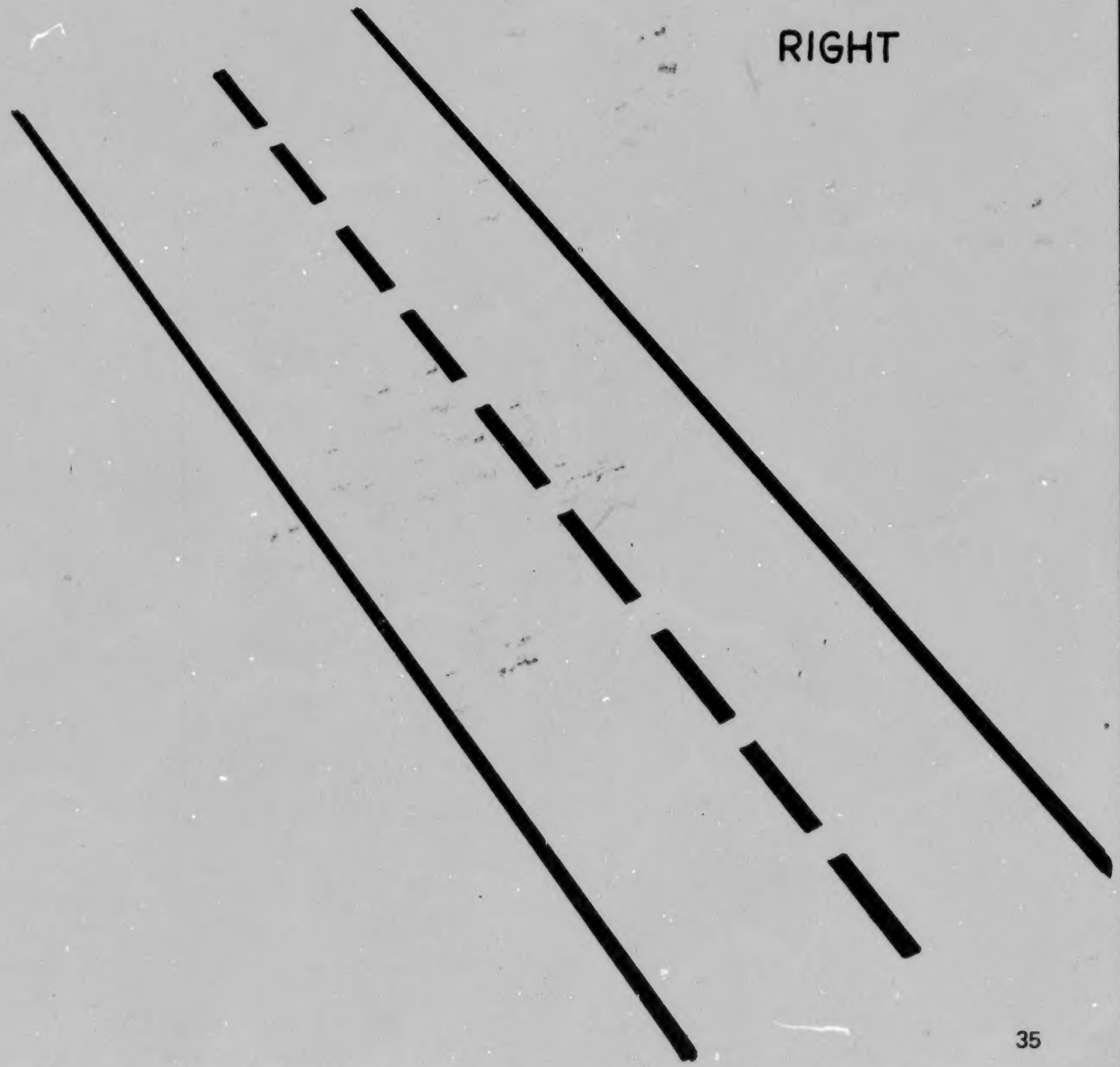
INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Film: "The Day The Bicycles Disappeared" No. 6616 State Audiovisual Library Information Sheet, page 10-13	4.1 Instructor discusses reasons for lane marking and lane placement. **Trigger Questions** a. Do your parents drive on the left or the right? b. Why should a bicycle stay on the right?	4.1 Student recognizes lane marking and proper bicycle lane placement. Individualized Learning Guide No. 8
	4.2 Instructor discusses vehicle direction and proper positioning.	4.2 Student determines proper positioning and direction of a bicycle. Transparency Original No. 9
Student Material Individualized Learning Guide No. 8 Transparency Original No. 9	4.3 Instructor discusses "drifting" over the center line. **Trigger Question** a. What would happen if you cross the center line?	4.3 Student is aware of the dangers in "drifting" over the center line.
Reinforcement Activity Solid and broken lane markings can be illustrated on the chalk board.	4.4 Instructor discusses causes of overcorrection. a. sharp turns b. inattention	4.4 Student recognizes causes for overcorrection.

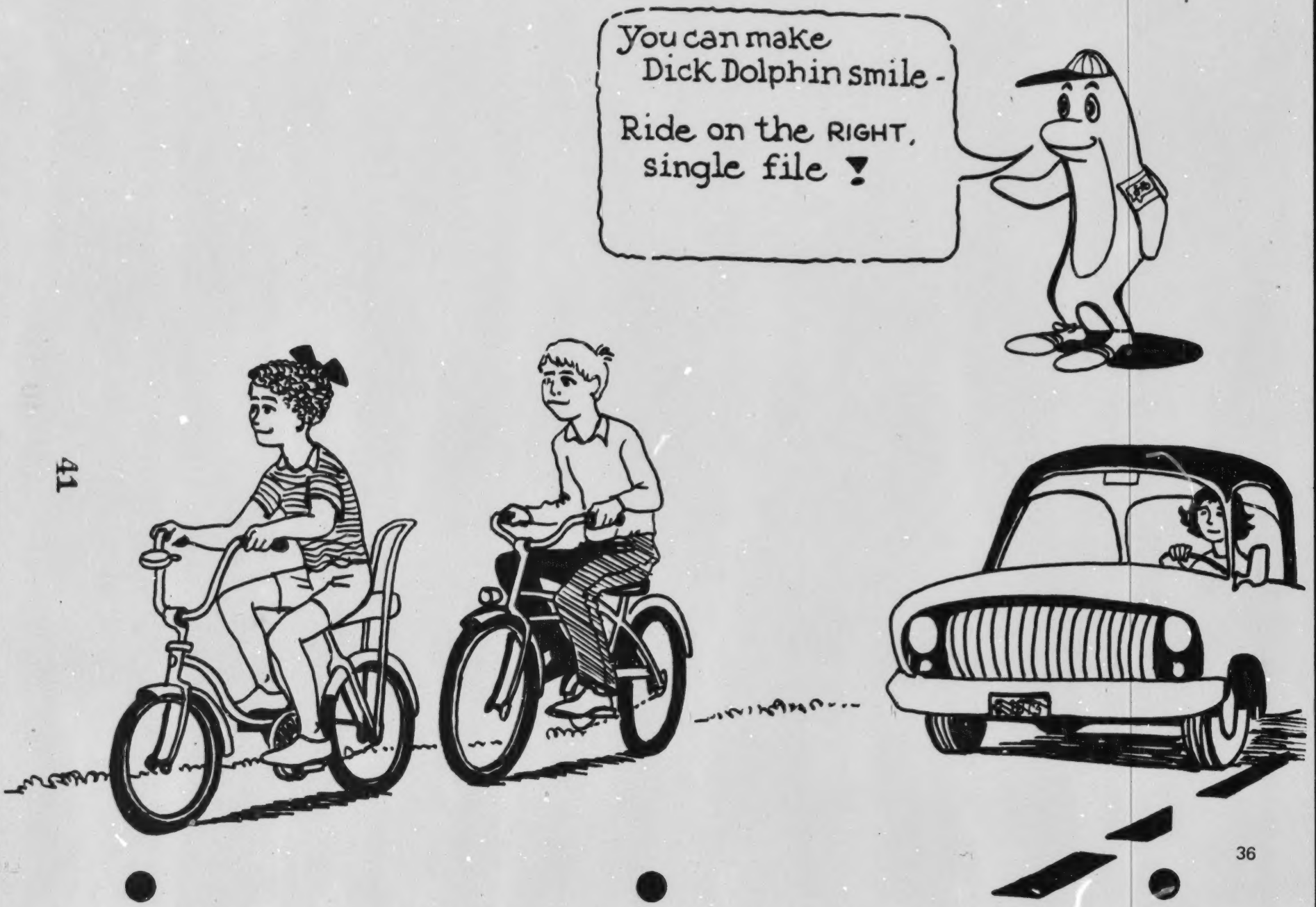
NEW WORDS. lane placement, drifting, oversteering

LEFT

40

RIGHT




You can make
Dick Dolphin smile -
Ride on the RIGHT,
single file !

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GRADE LEVEL: KINDERGARTEN
UNIT C. . .DECISION MAKING PROCESS
CONCEPT: 1.0 Bicycle Courtesy
2.0 Vehicle and Operator Signals
3.0 Blind Spot Recognition
4.0 Weather Condition Hazards
5.0 Hazard Recognition

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Kindergarten

Applied Instruction: Language Arts
Social Studies

UNIT C. . .DECISION MAKING PROCESS

CONCEPT: 1.0 Bicycle Courtesy

PERFORMANCE OBJECTIVE: The student will identify habits of bicycle courtesy.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Film: "You and Your Bicycle" No. 2184 State Audiovisual Library	1.1 Instructor uses an oral pre assessment to check students for knowledge of bicycle courtesy.	1.1 Student orally discusses bicycle courtesy.
	1.2 Instructor initiates a group discussion about bicycle courtesy. Students are encouraged to explain good situations. **Trigger Questions** a. Where is it best to park your bicycle at home? b. Should you ride on the left side or right side of the roadway? c. Why do you use hand signals?	1.2 Student explains good courteous habits of a bicyclist. Student demonstrates understanding of courtesy by orally stating or moving the bicycle to correct area. Individualized Learning Guide No. 10
Student Material Individualized Learning Guide No. 10 **Reinforcement Acitivity** Plan a pretend bicycle trip practice using hand signals.	1.3 Instructor encourages student to demonstrate bicycle courtesy situations. **Trigger Questions** a. Did you notice the bicycles in the rack at school today? b. Tell me, when you were coming to school did you see or do something courteous?	1.3 Student looks for courteous habits around the school and on the way home. Student is able to recognize discourteous situations.

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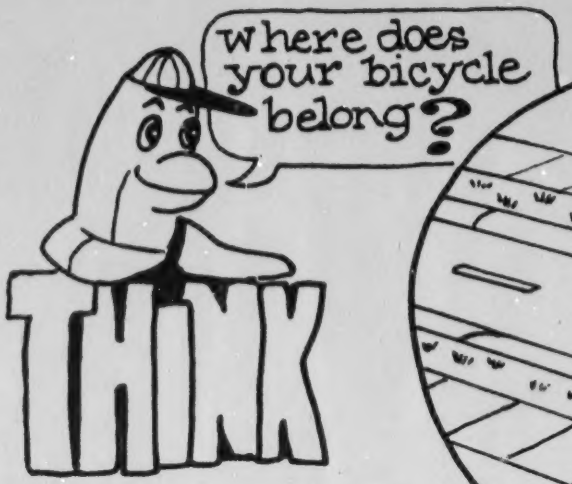
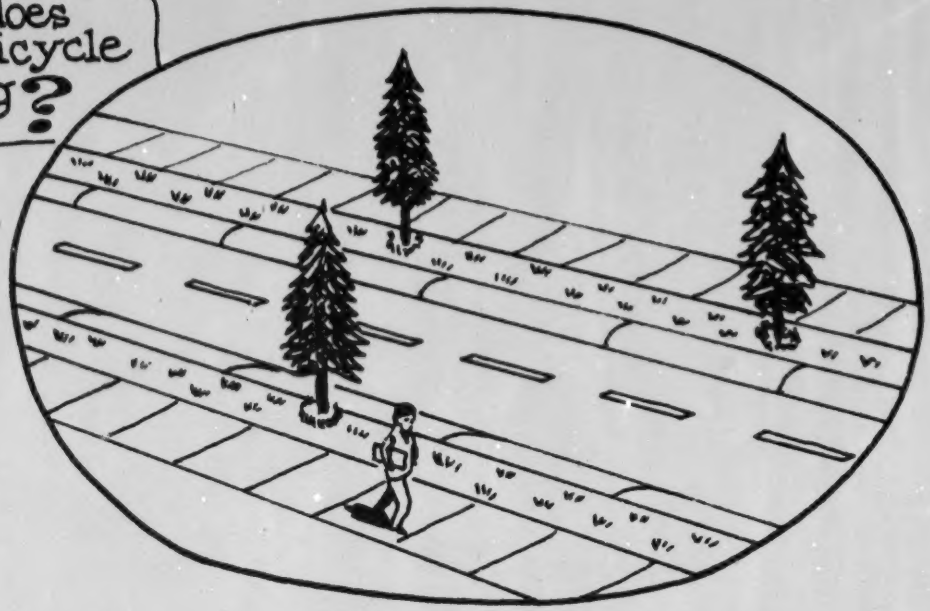
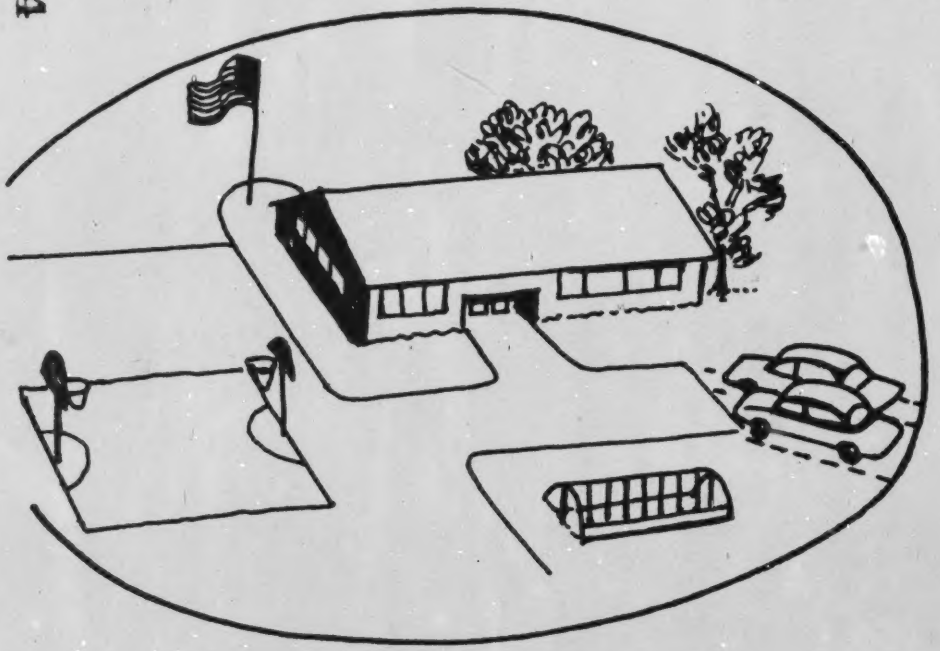
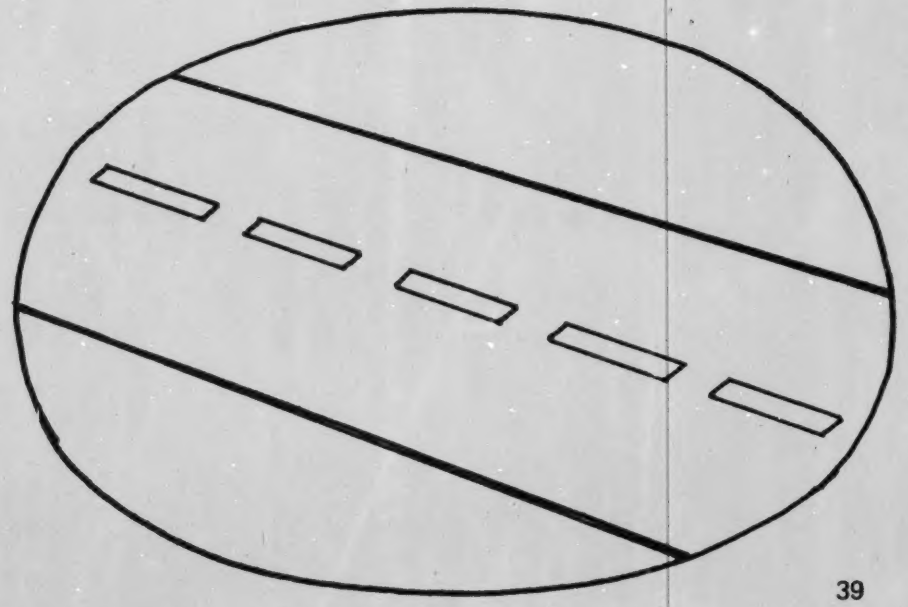
NEW WORDS: courtesy, area


where does your bicycle belong?
THINK







MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Kindergarten

Applied Instruction: Art
Physical Education
Language Arts
Social Studies

UNIT C. . .DECISION MAKING PROCESS

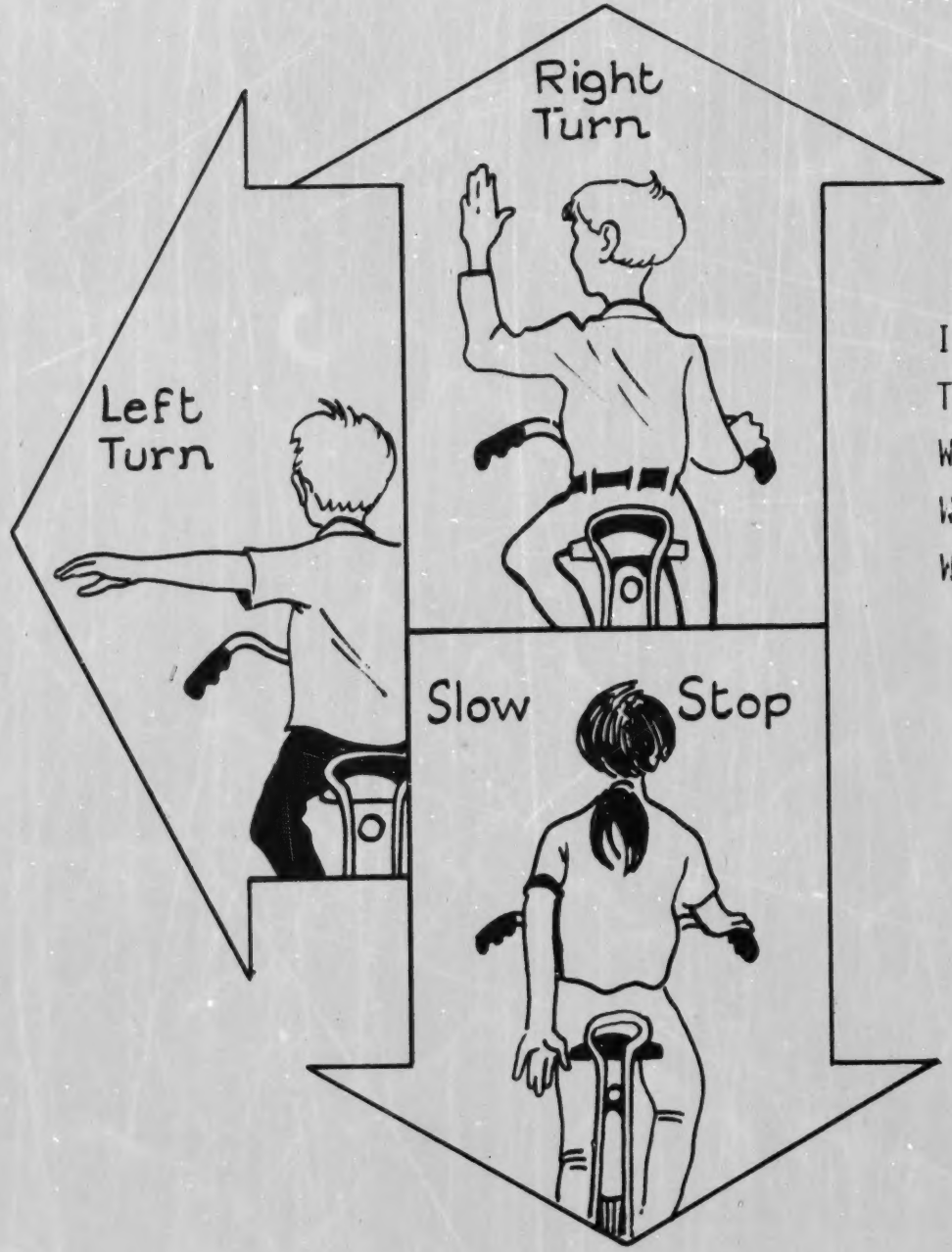
CONCEPT: 2.0 Vehicle and Operator Signals

PERFORMANCE OBJECTIVE: The student will be able to identify vehicle signals and use correct operator signals.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Notes: Left turn signal – extending arm straight out from the shoulder. Right turn signal – extend left arm to elbow with forearm pointing upward. Stop/slow signal – extend upper arm out from shoulder with forearm extended downward, palm to rear. Information Sheet, page 13	2.1 Instructor demonstrates left and right of hands, eyes, ears, feet. Instructor leads activities which encompass left and right concepts using Dick Dolphin's Poem. a. Student looks left, then right. b. Student participates in game using Dick Dolphin's Poem.	2.1 Student participates in activities to demonstrate left side and right side. Transparency Original No. 11
	2.2 Instructor will help the students demonstrate the three hand signals.	2.2 Student knows the three hand signals used by bicycle operators to inform others of intended action, are the same as those used by the operators of other vehicles. Individualized Learning Guide No. 12
Student Material Individualized Learning Guide No. 12 Transparency Original No. 11		

NEW WORDS: signal, vehicle, directional, turn indicators, left, right, elbow, forearm

TRANSPARENCY ORIGINAL No. 11

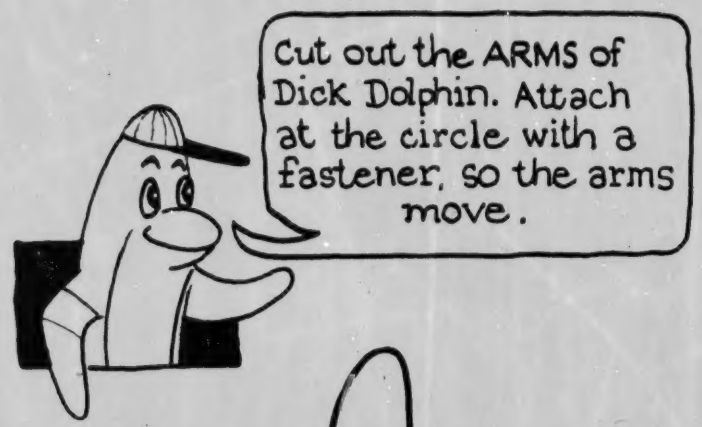


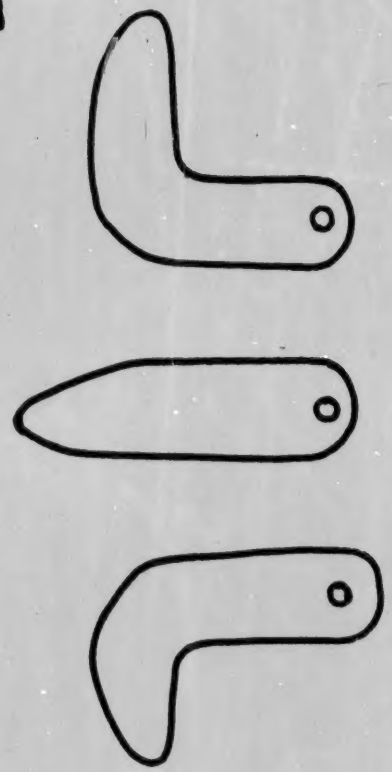
Dick Dolphin's Poem

I CAN BEND MY LEFT ARM JUST SO
TO MAKE A CORNER WITH MY ELBOW
WHEN IT IS UP, TO THE RIGHT I GO
WHEN IT IS STRAIGHT, TO THE LEFT I GO
WHEN IT IS DOWN, I STOP OR SLOW.

(BEND LEFT ARM)

(FOREARM UP, PALMS FORWARD)
(ARM STRAIGHT OUT)
(FOREARM DOWN, PALMS BACKWARD)


Cut out the ARMS of Dick Dolphin. Attach at the circle with a fastener, so the arms move.



MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Kindergarten

Applied Instruction: Physical Education
Science
Health

UNIT C. . .DECISION MAKING PROCESS

CONCEPT: 3.0 Blind Spot Recognition

PERFORMANCE OBJECTIVE: The student will recognize blind spots.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material	3.1 Instructor discusses the term "blind spot" and the potential blind spots for motorists and bicyclists. **Trigger Questions** a. Do glasses create blind spots? b. What devices do motorists and bicyclists use to help eliminate blind spots? c. Do motorists have more blind spots than bicyclists? (mirrors, posts, and passengers) d. Who has to be more careful about the blind spot of the other operator? (Bicyclist because the motorist has more blind spots and may not see him.)	3.1 Student points to areas he cannot see and recognizes potential blind spots by responding to questions.
Student Material		
Reinforcement Activity Instructor/student make replica of bicycle and automobile to help student recognize blind spots. Students take turns in the roll of bicyclist and motorist. page 44		

NEW WORDS: blind spot, eliminate, posts

MATERIALS: ONE LARGE RECTANGULAR CARDBOARD BOX
ONE SMALLER RECTANGULAR BOX
PAINT (OPTIONAL)

MAKE AN AUTOMOBILE USING THE LARGE BOX. CUT WINDOWS ALL AROUND. DOORS MAY BE CUT SO THEY SWING OPEN. SET CHAIR INSIDE FOR THE DRIVER'S SEAT.

MAKE "BICYCLE" USING THE SMALLER BOX. BICYCLE SHOULD BE LARGE ENOUGH SO STUDENT CAN STRADDLE IT AS A BICYCLE.

THE TWO VEHICLES SHOULD BE PLACED IN SEPARATE "LANES"- ONE SLIGHTLY BEHIND THE OTHER. DIRECT STUDENT TO LOOK AS FAR TO THE RIGHT AND LEFT WITHOUT TURNING HIS HEAD WHILE SITTING IN THE AUTOMOBILE. STUDENT NOTES WHAT HE CAN SEE.

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Kindergarten

Applied Instruction: Science
Health

UNIT C. . .DECISION MAKING PROCESS

CONCEPT: 4.0 Weather Condition Hazards

PERFORMANCE OBJECTIVE: The student will identify the effects of weather conditions.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: Discuss friction and demonstrate friction by rubbing finger over desk top to create heat. Information Sheet, page 11 **Student Material** Transparency Original No. 13	4.1 Instructor discusses the effect of weather conditions on the operation of a bicycle. a. ice b. rain c. mud c. snow e. fog f. sleet **Trigger Questions** a. Which has the greatest effect on operating a bicycle? b. How does mud make operating a bicycle difficult? c. Which weather conditions will make a road slick? d. Is it easy to ride a bicycle in snow? Why? e. Is it safe to ride a bicycle through a fog, on a busy street? Why? f. Is your bicycle more likely to get stuck in mud or snow? Why? g. Why might your bicycle skid on a wet road? h. Have you ever seen sleet? What happens to to road during a sleet storm?	4.1 Student identifies weather conditions that affect bicycle operation. Transparency Original No. 13

TRANSPARENCY ORIGINAL No. 13

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MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Kindergarten

Applied Instruction: Science

UNIT C. . .DECISION MAKING PROCESS

CONCEPT: 5.0 Hazard Recognition

PERFORMANCE OBJECTIVE: The student will become aware that a bicycle is difficult for a motorist to see.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 11 Appendix A–B Note: The north, south, east and west directions are primarily for your use. The exceptional student may be able to determine or already know the directions.	5.1 Instructor helps the student to create street situations depicting a hazard for the bicyclist.	5.1 Student arranges cutouts of vehicles on the intersection to visualize a hazard. Individualized Learning Guide No. 14
	5.2 Instructor/student compare the size of a bicycle with the size of other vehicles. The cutouts may be pasted and colored on an intersection.	5.2 Student compares the difference in bicycle size to other vehicles.
Student Material Individualized Learning Guide No. 14		

NEW WORD: hazard

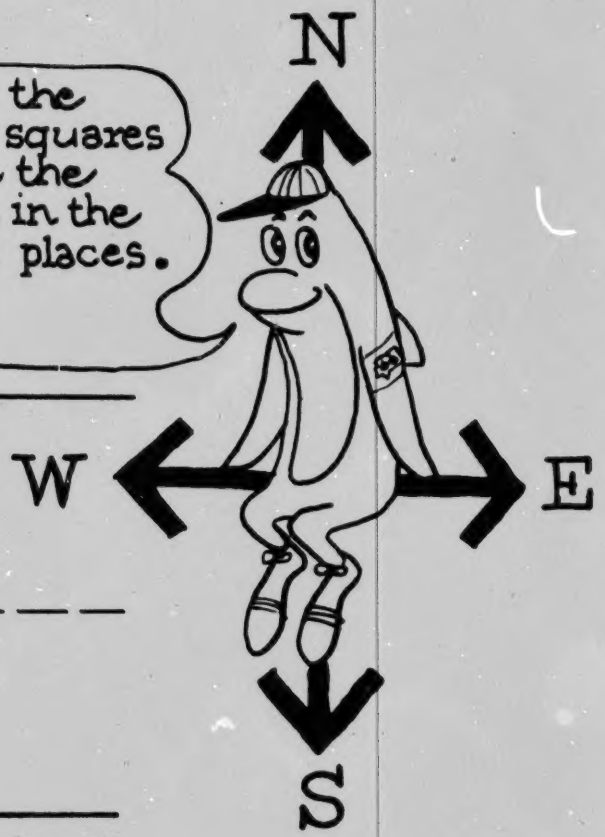
a.

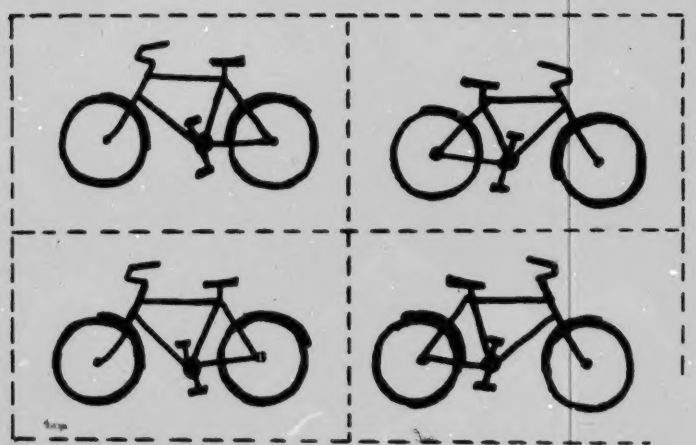
b.

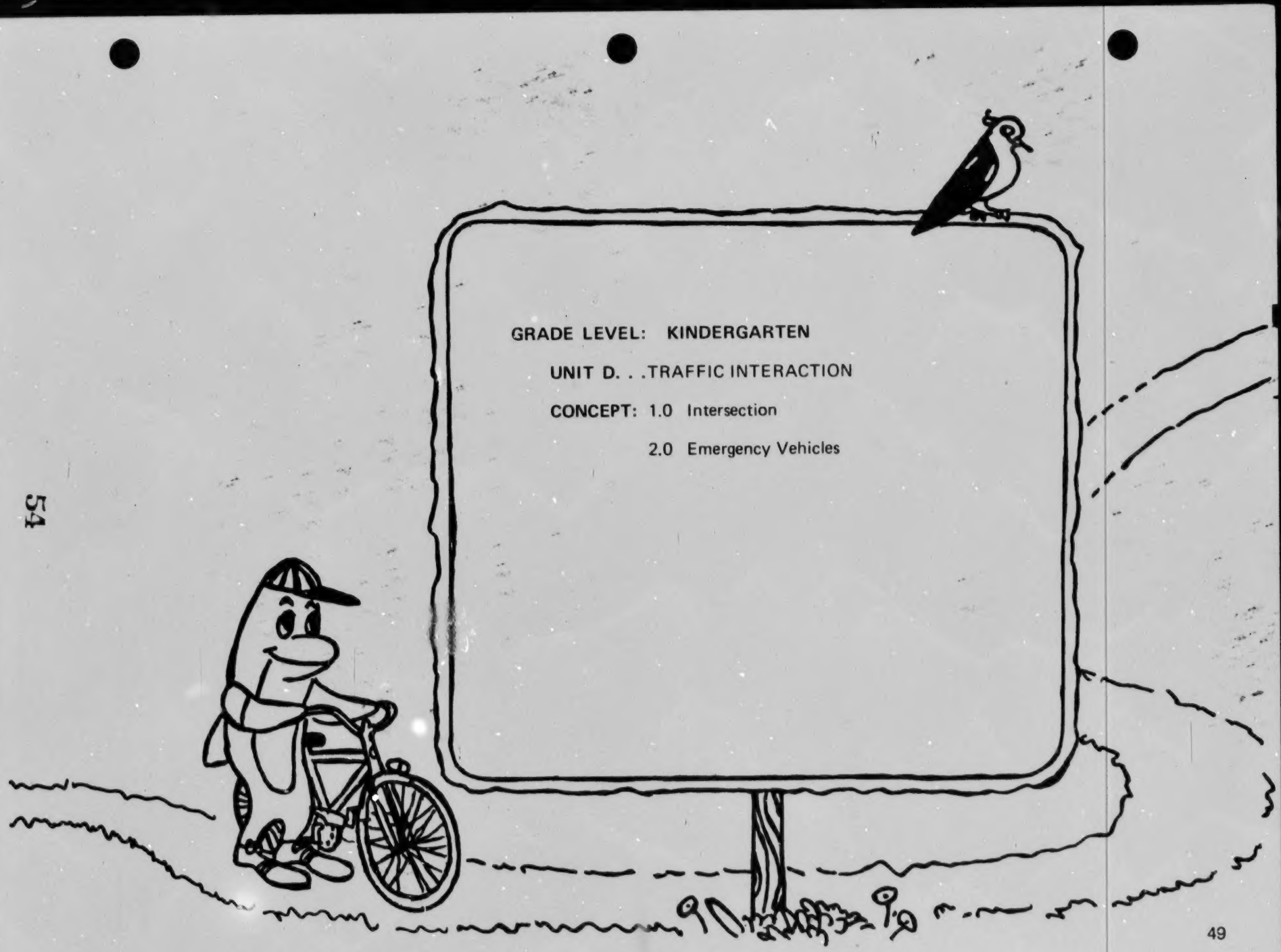
c.

d.

cut out the bicycle squares and put the bicycles in the correct places.






GRADE LEVEL: KINDERGARTEN
UNIT D. . .TRAFFIC INTERACTION
CONCEPT: 1.0 Intersection
2.0 Emergency Vehicles

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Kindergarten

Applied Instruction: Language Arts

UNIT D. . .TRAFFIC INTERACTION

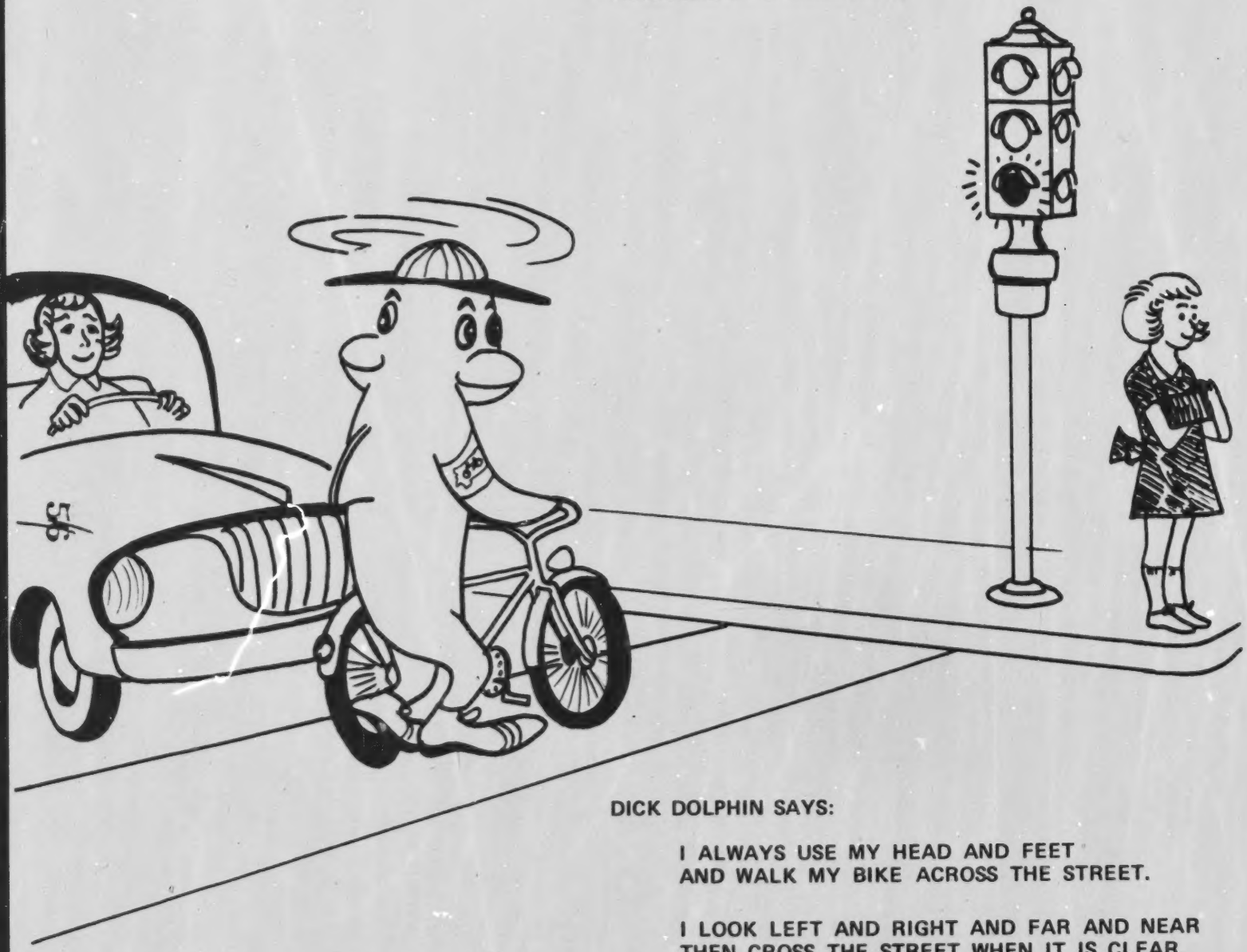
CONCEPT: 1.0 Intersections

PERFORMANCE OBJECTIVE: The student will develop correct method of crossing intersections.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: Two bicycles or cardboard cutouts can be used to represent bicycles. Information Sheet, page 14	1.1 Instructor explains the different intersections possible. a. Intersections with signals. (controlled) b. Intersections with signs. (controlled) c. Intersections without signals or signs. (uncontrolled)	1.1 After a class discussion of intersection scanning, student using aisles as roads, plays a game by scanning the intersections, right and left, and yielding to all traffic before proceeding.
	1.2 Instructor initiates a discussion of rules and methods for crossing controlled and uncontrolled intersections. **Trigger Questions** a. What are the correct rules for crossing at a crosswalk? b. What type of courtesy do you as a bicycle operator have to demonstrate?	1.2 Student demonstrates correct method for crossing controlled and uncontrolled intersections. Transparency Original No. 15
Student Material Transparency Original No. 15 **Reinforcement Activity** Students may recite and learn poem on Individualized Learning Guide No. 11, page 41.		

NEW WORDS: controlled intersection, uncontrolled intersection, scanning

TRANSPARENCY ORIGINAL No. 15



DICK DOLPHIN SAYS:

I ALWAYS USE MY HEAD AND FEET
AND WALK MY BIKE ACROSS THE STREET.

I LOOK LEFT AND RIGHT AND FAR AND NEAR
THEN CROSS THE STREET WHEN IT IS CLEAR.

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Kindergarten

Applied Instruction: Language Arts
Health
Art

UNIT D. . .TRAFFIC INTERACTION

CONCEPT: 2.0 Emergency Vehicles

PERFORMANCE OBJECTIVE: The student will recognize emergency vehicles.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material	2.1 Instructor points out identifying feature on emergency vehicles.	2.1 Student recognizes emergency vehicles by coloring vehicles. Individualized Learning Guide No. 16
	2.2 Instructor has student imitate sound of emergency vehicles.	2.2 Student imitates the sound of emergency vehicles.
	2.3 Instructor has student play the role of an emergency vehicle while the rest of the class plays the role of cars, bicycle operators, pedestrians.	2.3 Student role plays the part of an emergency vehilce moving among other students, role playing the part of cars, bicycle operators, pedestrians.
Student Material Individualized Learning Guide No. 16		

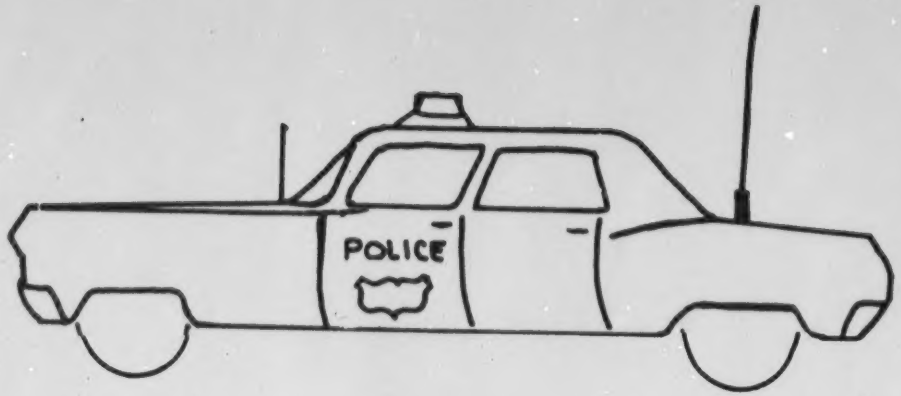
NEW WORD: features

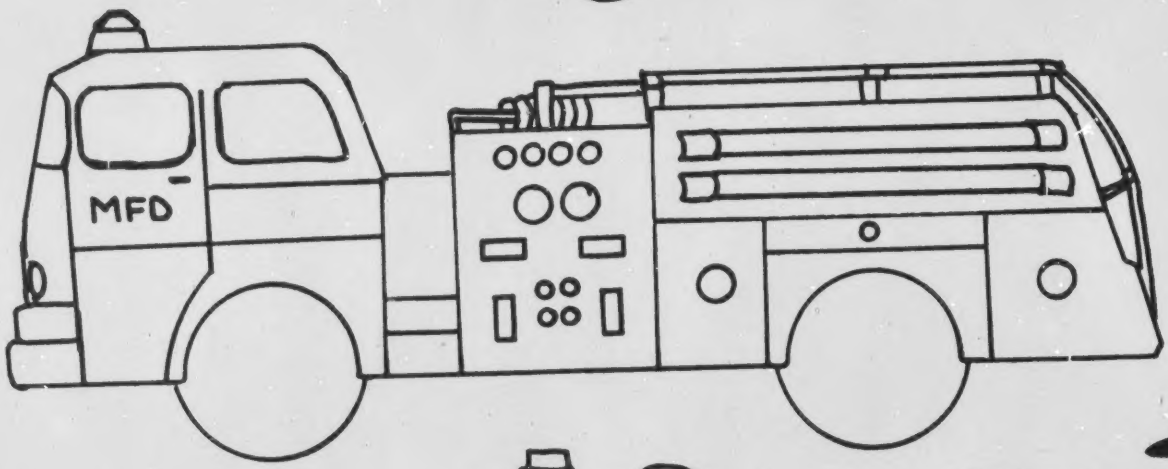
DO YOU KNOW EMERGENCY VEHICLES?

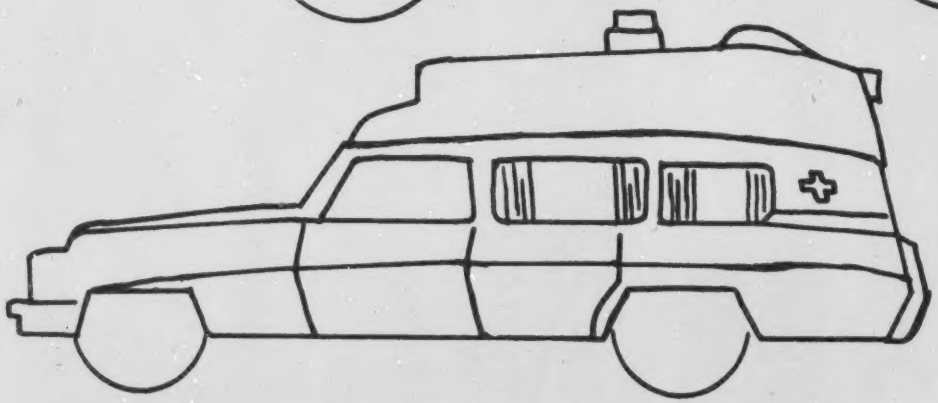
COLOR EACH VEHICLE THE CORRECT COLOR.

WHAT DOES EACH EMERGENCY VEHICLE

DO WHEN WE NEED ITS HELP?







GRADE LEVEL: KINDERGARTEN
UNIT E. . .CAREER AWARENESS
CONCEPT: 1.0 Safety Workers

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Kindergarten

Applied Instruction: Art
Social Studies

UNIT E. . .CAREER AWARENESS

CONCEPT: 1.0 Safety Workers

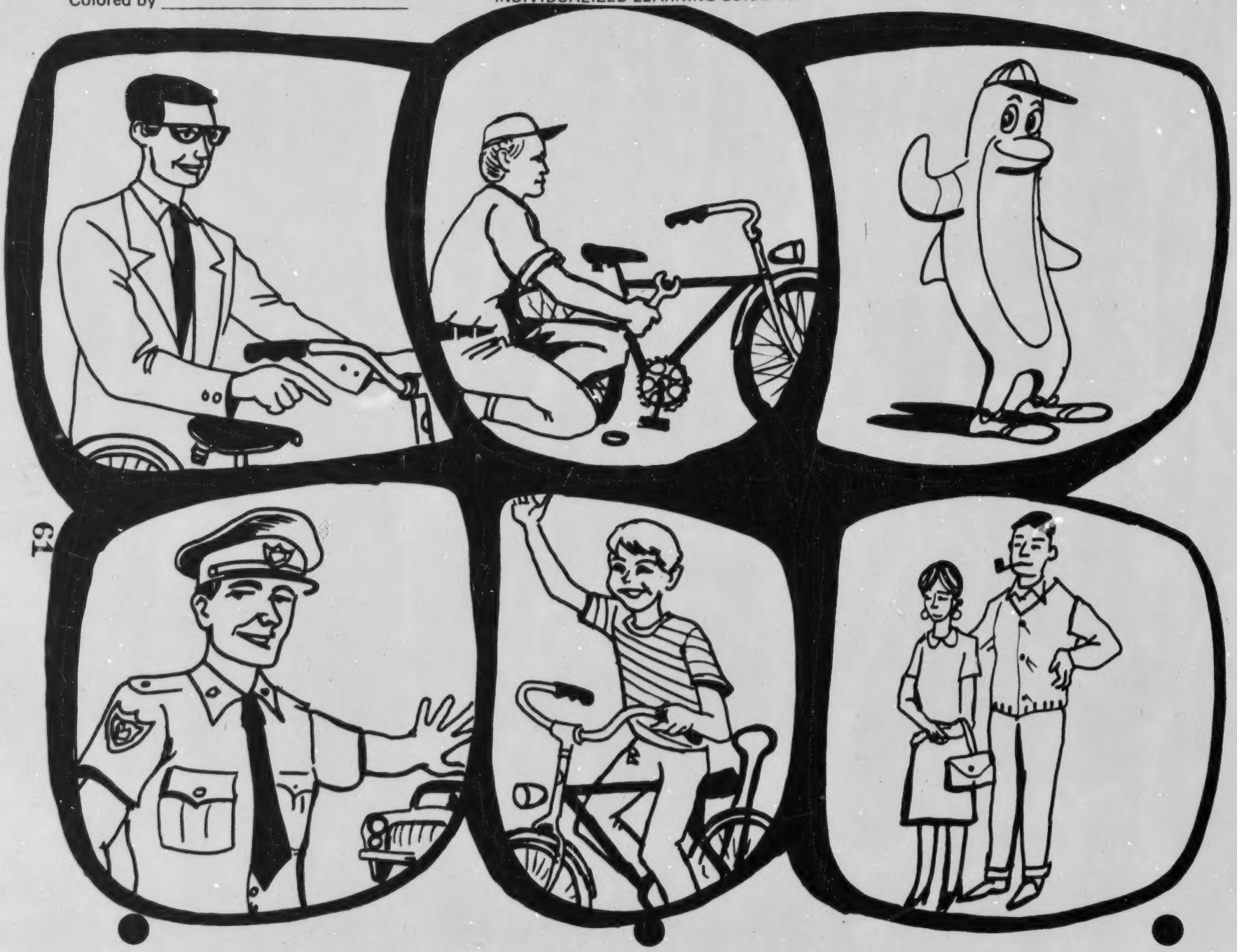
PERFORMANCE OBJECTIVE: The student will be aware of careers related to bicycling.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: Student should include himself as a very important safety worker. **Student Material** Individualized Learning Guide No. 17	1.1 Instructor/student discuss jobs related to bicycles. Safety Workers a. salesmen b. bike repair c. Dick Dolphin d. policeman e. YOU f. parents	1.1 Student identifies a job visable in a community which is related to bicycling. Individualized Learning Guide No. 17

NEW WORD: job

Colored by _____

INDIVIDUALIZED LEARNING GUIDE No. 17



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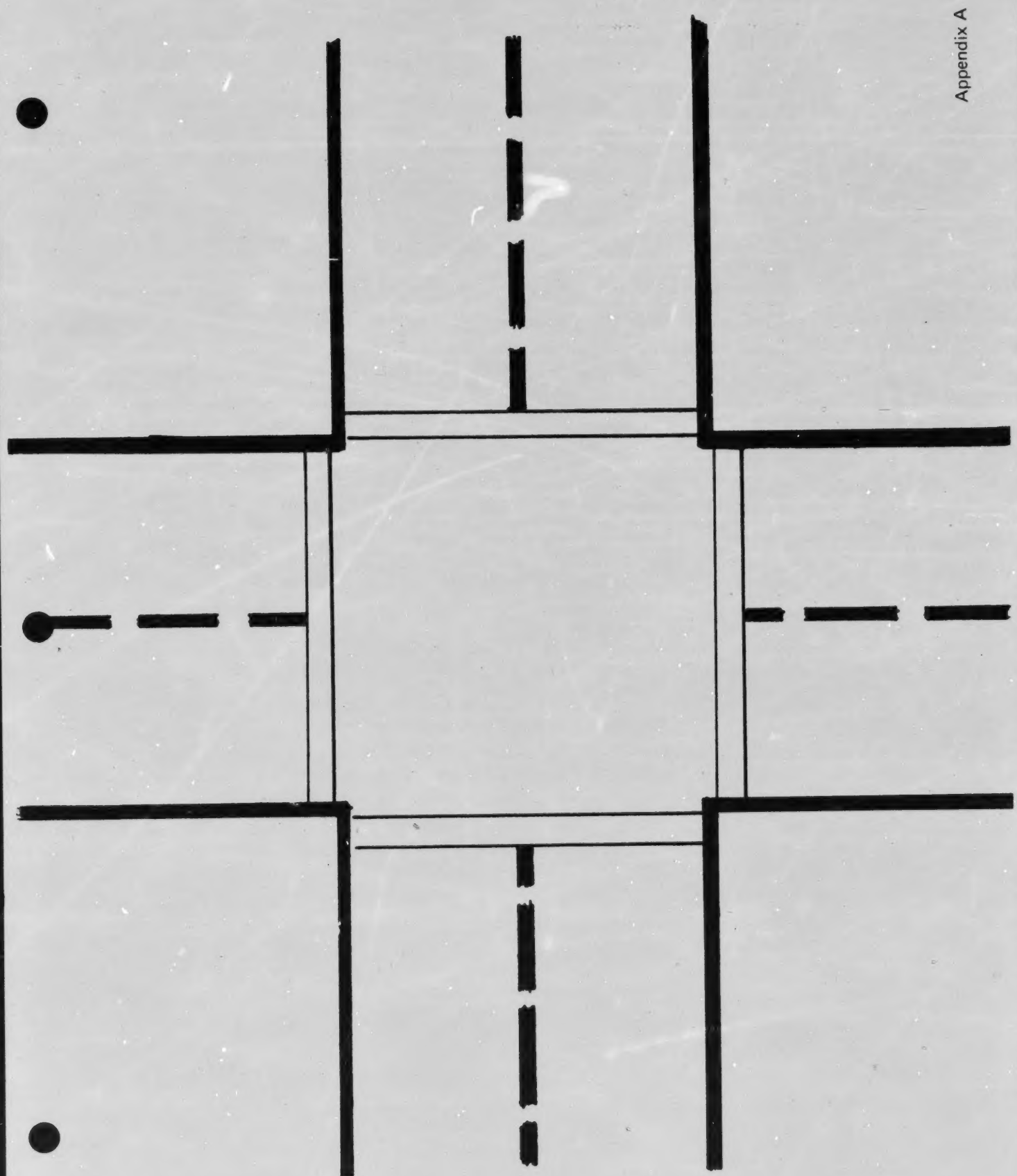
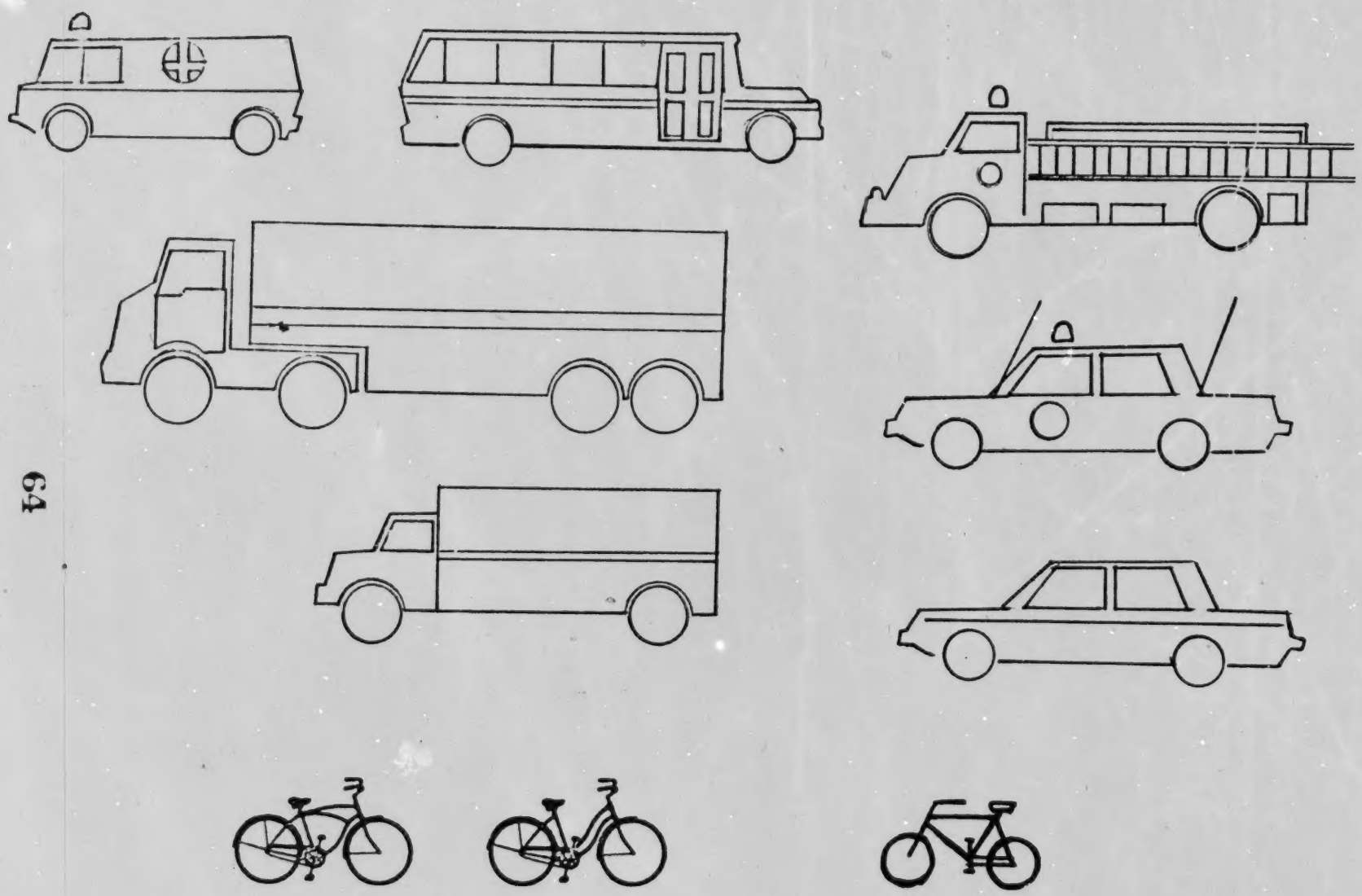
APPENDICES

TRAFFIC INTERSECTION	A
VEHICLES TO SCALE	B
DICK DOLPHIN FIGURES	C–D
BICYCLIST ARM PATCH	E
TRAFFIC CONTROLS	F–L
SAMPLE ACTIVITIES	M
ROUTE GAME	N
BIKE FESTIVAL	O–S





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STOP

RR

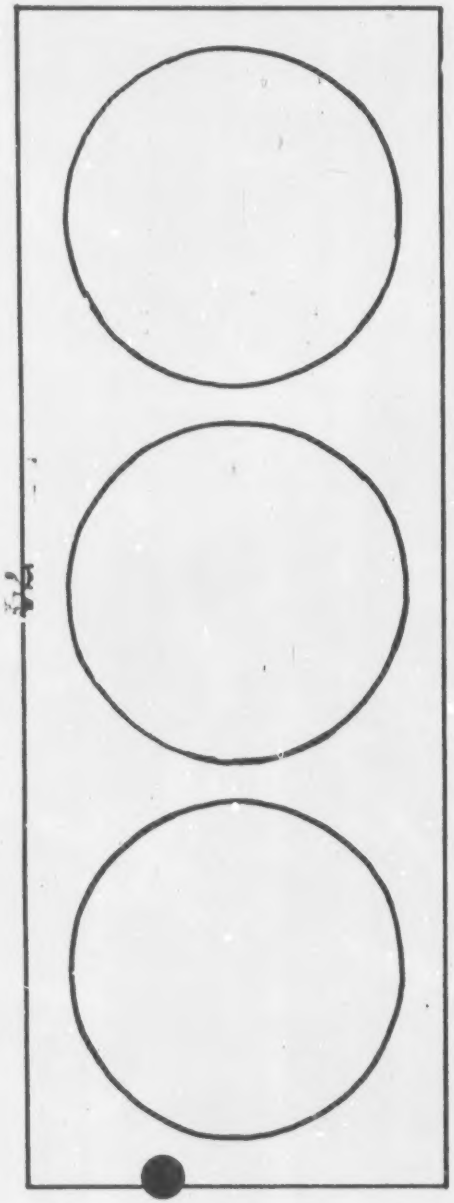
Appendix I

YIELD

Sign coloring – WHITE: bicycle interior, border line, arrow, letters **BIKE ROUTE**
GREEN: background of bicycle, background or arrow

REINFORCEMENT ACTIVITY

MODEL TRAFFIC LIGHT



Cut three large holes in the side of a half-gallon milk carton. Cover the top hole with *red* cellophane or tissue. Cover the middle hole with *yellow*, and the bottom hole with *green*. Cut a hole in the opposite side of the carton so the cellophane circles can be illuminated from behind with a flashlight. Insert a cardboard mailing tube in the base for a stand. Children can take turns operating the traffic light with a flashlight.

DICK DOLPHIN:

HE IS VERY BRIGHT.

WHEN THE LIGHT TURNS RED -
STOP! HE USES HIS HEAD.

WHEN THE LIGHT TURNS YELLOW -
WAIT! BE A CAREFUL FELLOW.

GREEN LIGHT - LOOK LEFT AND RIGHT
AND BE SURE IT'S CLEAR,
BEFORE YOU CAN CROSS WITHOUT ANY
FEAR.

Ten Little Bikes
(tune: *Ten Little Indians*)
10 little bikes all in a line;
1 fell over—then there were 9.
9 little bikes all in a line;
1 was stolen—then there were 8.
8 little bikes all in a line;
1 got hit—then there were 7.
7 little bikes all in a line;
1 lost a wheel—then there were 6.
6 little bikes all in a line;
1 hit a tree—then there were 5.
5 little bikes all in a line;
1 went through a stop sign—then there were 4.
4 little bikes all in a line;
1 rode double—then there were 3.
3 little bikes all in a line;
1 didn't signal—then there were 2.
2 little bikes all in a line;
I hooked a ride—then there was 1.
1 little bike all well;
Following the safety rules—he'll stay that way.

Poem
When riding a bike,
Look out for those who hike.
Make sure you use your noggin.
Don't be dobbin
Keep moving along, and obey
all bicycle rules,
For you wouldn't want the doctor to
use his tools.
Don't fall down and bump your nose,
Just because you were pedaling
barefoot with your toes.
Always be careful.
Don't be dareful.
Don't ride double with your friend,
Or it may very well be your end.

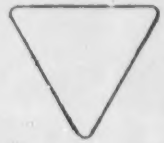
Crossing a busy street
Is not a treat.
You have to look left and right
Until there's not a car in sight.

Know your bicycle rules,
Don't be fools.
Remember them all
And you won't have to make
a doctor's call.

Poem
When Dick Dolphin rides his bright red bike,
He watches for the traffic light.
He stops with red, and goes with green,
For the rushing cars are very mean.
The cars are big; Dick's bike is small.
Dick knows the safety rules—one and all.
Dick wishes you would know them too;
And use them on your way to school.
But not just on your way to school;
ALWAYS use Dick's safety rules.

by *Kara*

Read Aloud Safety Story
One day, Dick Dolphin and his friends went for a ride on their bikes. They looked at the signs by the road. They saw a white sign with a red band like this one.



"What shall we do?" asked Jack. "We must slow down," said Dick. "Then we will look around carefully. If there isn't any car coming we will go on." "Why do we have to slow down?" asked Tom. "So that we will be safe bike riders," said Dick. "The people on that other road have the right-of-way." "What does that mean?" asked Jack. "It means that they do not have to stop for us." said Tom. "Isn't that right, Dick?" "Yes," said Dick. "Now here is another sign. What does it say?"

"I know that one," said Jack. "That means stop." "Why is it red?" asked Tim. "I know." said Bob. "Red means danger. The red sign with the white letters is easy to see, too." "You are right." said Dick Dolphin. "It is time to go home. We will find more safety signs when we go riding tomarrow. Always remember, *Safety First*!"

Fair–Mont–Egan School

WHICH IS THE SAFE PATH ?

START AT THE BOTTOM OF THE PAGE, CHOOSE YOUR PATH CAREFULLY.

'FESTIVAL OF BIKES'

School–Community Activity

A group activity, in which all students participate and the parents are involved, reinforces a student, instructor and community effort. The following is a sample of such an activity to assist you in planning. For each community the conditions, equipment and need will vary and the school should plan according to these considerations.

Leadership
Leadership is the key to success. Community involvement, a strong point in this activity, requires firm but not dictatorial leadership. Planning by the leader will assure the essential consideration of safety for the participants and observers.

Objective
1. Create attitudes which will allow students safe and enjoyable bicycle operation experience.
2. Provide an activity which creates parental awareness of bicycling and what is being taught in the school.
3. Create, by parent and community, awareness of bicycle safety.
4. Provide experiences for problem solving in simulated situations.
5. Prepare skill competencies in bicycle operation in the traffic environment such as balance, control and emergency movement.

Planning
Activities should be divided by age groups, for example, ages 6, 7, and 8 might participate as a group. A caution to the planner; avoid timed activities as opposed to skilled activities. An activity designed to improve skills of students, and being non competative, encourages young people participating to learn and not to show off.

Parents and news media should be informed well in advance of the activities. Perhaps transportaiton on a school bus could be provided. This will also help parents to understand school problems in transportation.

Most students and parents are willing participants in well planned activity spanning about 2½ to 3 hours. A program should be printed and include objectives and appropriate acknowledgements.

Planners should involve community agencies such as law enforcement, service clubs, high school students, bicycle groups, bicycle dealers, senior citizens, et al.

Sample Program:
1:00 P.M. . . . Film Showing
1:30 P.M.M. . . . Bike Inspection
2:15 P.M. . . . Bike Skills Activities
3:00 P.M. . . . Awards
3:15 P.M. . . . Bike Parade

Film – Appropriate film for parents and students chosen by age level. Previewing the film is essential. Suggested films: "Just Like A Car" or "Tripping On Two." Montana Audiovisual Library, Office of the Superintendent of Public Instruction, Helena, MT 59601.

Inspection – An inspection form, a sample of which appears on the following pages, can be obtained from the Montana Highway Patrol Bureau, Helena, MT 59601.

Activities – An outline of activities appears on appendix R. Scoring of the skills must conform to your program objectives. A suggestion is that each of the five parts have a value of 20 points. Points are deducted for errors. Use any or all activities adopting each activity to age group and area.

Awards – Every participant should leave the activity with some recognition that they have participated. Additional prizes or awards for skills could include safety items for bikes such as bike flags, reflectors, bike horn or a T-shirt (see page 7). In some communities service organizations or businesses will contribute such items. A sample award is provided on the last page.

Parade – The first consideration of parade organization is safety. Plan the route and determine how dispersion of participants will take place, keeping in mind community traffic patterns.

Helpful Aids – General outlines of skill activities and helps to a leader planning a group skill activity:

American Automobile Association
1712 G. Street, N.W.
Washington, D.C. 20006
Request single copies of activity material.

Bike Reflector Kits, products and price list available on request
Safety Factors, Inc.
6746 West North Avenue
Chicago, IL 60635

Bike safety items, price list available on request:
American Industries, Inc.
Sarasota, FL 33580

Activities and information of general use, "Expert Bike Driver":
Channing L. Bete Co., Inc.
45 Federal Street
Greenfield, MA 01301
Student booklet price 25 cents each.

Cones, bike triangles, line markers, etc.:
Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, MO 63701
Request catalog.

Reflective tape emblems with Dick Dolphin, request prices and information:
Traffic Control Products, 3M Company
James A. Delaney
109 Riverview 1 West
Great Falls, MT 59401
Request additional information on Bike Safety Kits.

(SAMPLE)

SCORE SHEET

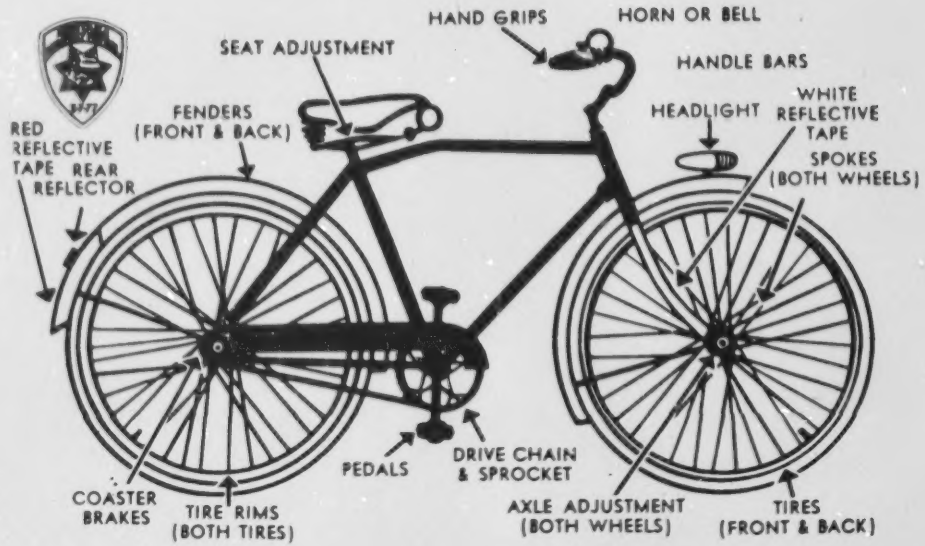
Name _____

ACTIVITY	SCORE	IMPROVEMENT IN
1. Figure Eight		
2. Straight Line		
3. Weaving		
4. Intersection		
5. Evasive		
6. Stopping		
Total		

Score Keeper _____

(SAMPLE)

INSPECTION FORM



Available from:
Montana Highway Patrol Bureau
Helena, MT 59601

BICYCLE SAFETY INSPECTION: The club instructor is to inspect each bike or he may accept a card signed by an authorized bicycle dealer as proof of safe condition.

Name of Bicycle Owner.....

Inspection Made by.....

	Pass	Adjusted	Repairs Needed
HANDLE BARS—Right height, tight. Handlegrips must be tight.			
BRAKES MUST HOLD.			
SADDLE—Should be adjusted so that leg forms straight line when rider sits with heel on pedal at lowest point.			
PEDALS—Should have good treads, lubricated to turn freely.			
WHEELS—Wobble indicates need of wheel cone adjustment or replacement of broken spokes.			
REFLECTOR—Required as essential safety item.			

HEADLIGHT: The club does not insist on a headlight, but the child must understand that it is required by law if riding after dark.

PARENTS: For safe, easy riding keep bikes in good repair.
Your authorized bicycle dealer will make this inspection.

(SAMPLE)

Bicycle Skill Activities

Area: Boundries may be determined by using cones, block or lines. The perimeter of the area should be free of hazards and boundry items safe if hit by the participants. Area available and ability of participants will dictate distances.

1. *Figure Eight* – Purpose: balance and change of direction. When operating a bicycle there are frequent instances when the operator must swerve to avoid a pedestrian, a pothole, or an oncoming vehicle.

2. *Straight Line* – Purpose: start and stop without weaving. With a bicycle of proper size a participant can start and stop without weaving. The proper bike pedal position should be checked.

3. *Weaving* – Purpose: change of direction and maneuver. A bike operator becomes aware that he should not look at an obstacle because he steers in the direction he is looking.

4. *Intersection* – Purpose: hand signal check. Correct hand signals used without losing control of the bicycle.

5. *Evasive* – Purpose: evasive maneuver and change of direction in a confined area. A car door opening in the path of a bike operator requires swerving around the obstacle and avoiding oncoming traffic in a confined area.

6. *Stopping* – Purpose: stopping ability and stopping distance. Operators of bicycles are often unaware of stopping distance. Balance is important in stopping.

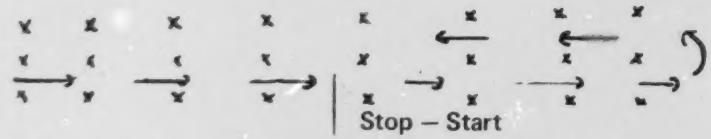
(SAMPLE)

Course Outline

'x' indicates cones or markings which show the course. Adjust distance to the area and group. Mark lanes 4 feet wide.

1.

2.



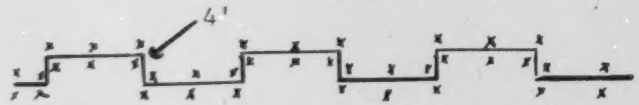
3.

Cones 8' to 10' apart

4.

← Person to tell participant to turn left, right, stop or slow.

5.



6.

Reaction time —— Braking distance
(Total stopping distance)

SAMPLE
AWARD

BICYCLE SAFETY AWARD

TO _____

For participating in **BICYCLE SAFETY INSTRUCTION.**

Dated _____

_____ _____

School Superintendent or Principal *Instructor*

Traffic Education for Montana Elementary Schools

1

DOLORES COLBURG, SUPERINTENDENT OF PUBLIC INSTRUCTION, HELENA, MONTANA 59601

PREFACE

This curriculum guide has been developed to assist teachers in an instructional program for elementary school youngsters in traffic education. The guide provides instructional aids and resource materials that are designed to fit smoothly into many areas of existing elementary curricula.

The basic materials in this guide were developed by participants in a July, 1973 workshop sponsored by my office and supported with a grant under the Highway Safety Act of 1966. The participants, who functioned as a task force team, are

Larry Becker
Barbara Bowlen
Don Burman
Marge Carlson
Joel Cobetto
Robert Eva
Gary Ford
Earl Furlong
Dorothea Grow
James Gunlikson
Lowell Hayes
Patricia Heydon
David Jones
Margaret Kavulla
Robert LeMieux
Thomas Loggins
Dan Magstadt
Lynn Mavencamp
Dan McKenty
Mildred McMillion
Harold G. Mogen
Raine Montysals
Roland Newton
Boyd O'Connell
Ed Reichert
Michael Rosbarsky
Minnie Skinner
David Stabio
Jack Sutton
Tally Taylor
William Taylor
R. Keith Thomas
Andrew Veis
Richard West
Jack Witham

Curtis R. Hahn, Traffic Education Supervisor, and Georgia D. Rice, Assistant Traffic Education Supervisor in my office, directed the entire effort in producing this guide. Consultative assistance, particularly for the July, 1973 workshop, was provided by Richard Boyer of Glenview, Illinois. Jerome Rankin did the artwork for the guide.

While this guide was pilot-tested in twelve elementary schools in the state prior to final publication and distribution, we would welcome responses from all who receive the guide as to its usefulness as an instructional and learning tool. Critical review of and comment on this guide can be of assistance to us in future efforts of this office.

DOLORES COLBURG
Superintendent of Public Instruction

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APPLIED INSTRUCTION AREA

To assist the instructor to integrate safety activities into instructional areas, subjects are listed and appropriate pages given below.

Subject Area	*Page Number of Related Traffic Safety Activities*
ART	18, 26, 31, 35, 53, 60
HEALTH	39, 46, 48, 50
LANGUAGE ARTS (Reading Readiness)	18, 23, 26, 31, 33, 35, 39
MATHEMATICS	23, 31,
MUSIC	Appendix M
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SCIENCE	46, 48, 50
SOCIAL STUDIES (Careers)	33, 44, 53, 56, 60

INTRODUCTION

As most of you know, traffic accidents represent one of the greatest threats to human preservation. Individuals are involved in a highly complex traffic environment from birth and remain involved throughout their lifetime as a passenger, pedestrian, bicyclist and motor vehicle operator. Consequently we owe it to our students to provide them the opportunity to learn the knowledges, skills, and attitudes that will allow them to function successfully within the traffic environment.

The education of a student is brought about by effective management of the total learning environment. After perusing the enclosed curricular guidelines, we believe you will discover that management by objective can be successfully applied and because the program is "performance based," learner achievement is promoted.

If we accept human preservation as an appropriate educational goal to manage as a part of the total learning environment, we must help the student develop his dicision making ability. The decision making process should begin early in the development of the student. The performances required in this program are built around decision making and problem solving. To be more specific, the concepts of IDENTIFY, PREDICT, DECIDE and ACT must be encouraged and taught throughout the utilization of this material.

The student must learn to IDENTIFY the problem or situation; PREDICT what might happen; DECIDE what course of action he must take to successfully deal with the situation; and ACT effectively. The IPDA concept has application on a much broader basis than just the traffic environment.

Human preservation cannot be achieved without the help, commitment and involvement of the following:

PARENTS

Nobody quarrels with the axiom that education begins in the home. Utilizing the home as the nearest "grass roots" of a child's learning environment is essential. The more sterile and removed the environment of the classroom, the more doomed to failure learning becomes. Ways to gain the curiosity, healthy interest, and helpful assistance of the parents are integrated in this program. The imagination of the instructor is unlimited when involvement is used to further develop the methods or create new methods.

STUDENTS

This program is based on the principle that students are aware of what tasks are expected of them, that they know what they can expect of their teachers, and that through their efforts, they can achieve success. Students are the gatherers and discoverers of information, not the receivers. Students develop psychomotor skills through practice, not as trainees. Students must become involved in the total task.

SCHOOL

When instructors, the administration, and school board agree on established goals, the compartmentalized school solidifies into a total unit dedicated to teaching the total student. A student who becomes a statistic in accident reports is denied his birthright to an education. Accident reduction in the traffic environment is an easily agreed upon goal.

COMMUNITY

No matter how small or isolated the community, various service, social, religious, and fraternal organizations and agencies are dedicated to the same goal as education. Some of these organizations and agencies have a wealth of experience, materials, and maybe most importantly, time which can be utilized and channeled for the benefit of kids. The prepared, interested and effective teacher makes full use of the community.

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STATE

The Office of the Superintendent of Public Instruction Traffic Education Program is especially receptive to your suggestions to improve, polish, and perfect the instructional content of this program. Any evaluation, innovation, successful methodology from you, the instructor, would be helpful. Other agencies are also committed to the education of youth. Some are mentioned in this program.

FEDERAL

The many projects initiated by the federal government, which focus on the youth, should be evidence of a commitment to be of assistance. Often, what seems to be apathy is ignorance of your needs.

LAW ENFORCEMENT AGENCIES

From the highway patrolman to the town marshal to the sheriff – all have a vital concern that a student will be educated with respect for and understanding of the laws which govern a society. Probably from no other source will the instructor find more cooperative and helpful people. Too often these people have seen the results of ignorance and carelessness in a traffic environment. They have a personal and professional commitment to the same goals as the instructor and this program.

SUMMARY

Students would never learn a new concept if it were not a more advanced endeavor than his previous level of knowledge. The program is created on a "building block" concept and though some concepts are difficult at the grade level assigned, the instructor should be cognizant that the student beginning at K with the kindergarten material will be ready for grade one material. Also it is not a challenge to the learner to repeat a concept which he has already discovered. Challenge your student or you will have discipline problems, frustration, and dull classes.

INVOLVEMENT

CREATES

COMMITMENT .

COMMITMENT

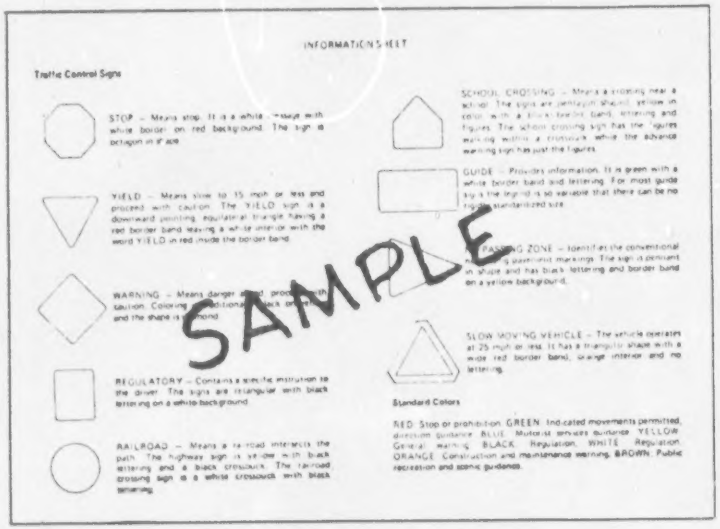
CREATES

SUCCESS.

DESCRIPTION OF FORMAT

The description of format found below is intended to provide the teacher with an overview of the various instructional materials used throughout this curriculum guide. These instructional materials have been color-coded for easier identification and implementation of unit activities. All teaching materials are printed on yellow paper. All appedices are printed on white paper. This curriculum is composed of the following instructional materials: 1. Information Sheets; 2. Format Sheets; 3. Individualized Learning Guide Sheets; 4. Transparency Original Sheets; 5. Reinforcement Activity Sheets; and 6. Appendices.

1. INFORMATION SHEETS: *Information Sheets* are printed on yellow paper and precede all other instructional materials. There are nine short sections to provide the instructor with needed information about bicycles. The *Information Sheets* help to prepare the instructor so that he will have the knowledge to teach and answer questions about bicycles. Before beginning instruction it is recommended that the instructor read all of the *Information Sheets.*


INFORMATION SHEET

Traffic Control Signs

STOP – Means stop. It is a white message with white border on red background. The sign is octagon in shape.

YIELD – Means slow to 15 mph or less and proceed with caution. The YIELD sign is a downward pointing, equilateral triangle having a red border band leaving a white interior with the word YIELD in red inside the border band.

WARNING – Means danger [illegible] caution. Coloring [illegible] and the shape is [illegible]

REGULATORY – Contains a specific instruction to the driver. The signs are triangular with black lettering on a white background.

RAILROAD – Means a railroad intersects the path. The highway sign is yellow with black lettering and a black crosspuck. The railroad crossing sign is a white crosspuck with black lettering.

SCHOOL CROSSING – Means a crossing near a school. The signs are pentagon shaped, yellow in color with a black border band, lettering and figures. The school crossing sign has the figures walking within a crosspuck while the advance warning sign has just the figures.

GUIDE – Provides information. It is green with a white border band and lettering. For most guide signs the legend is so variable that there can be no rigid standardized size.

[illegible] ZONE – Identifies the conventional [illegible] pavement markings. The sign is pennant in shape and has black lettering and border band on a yellow background.

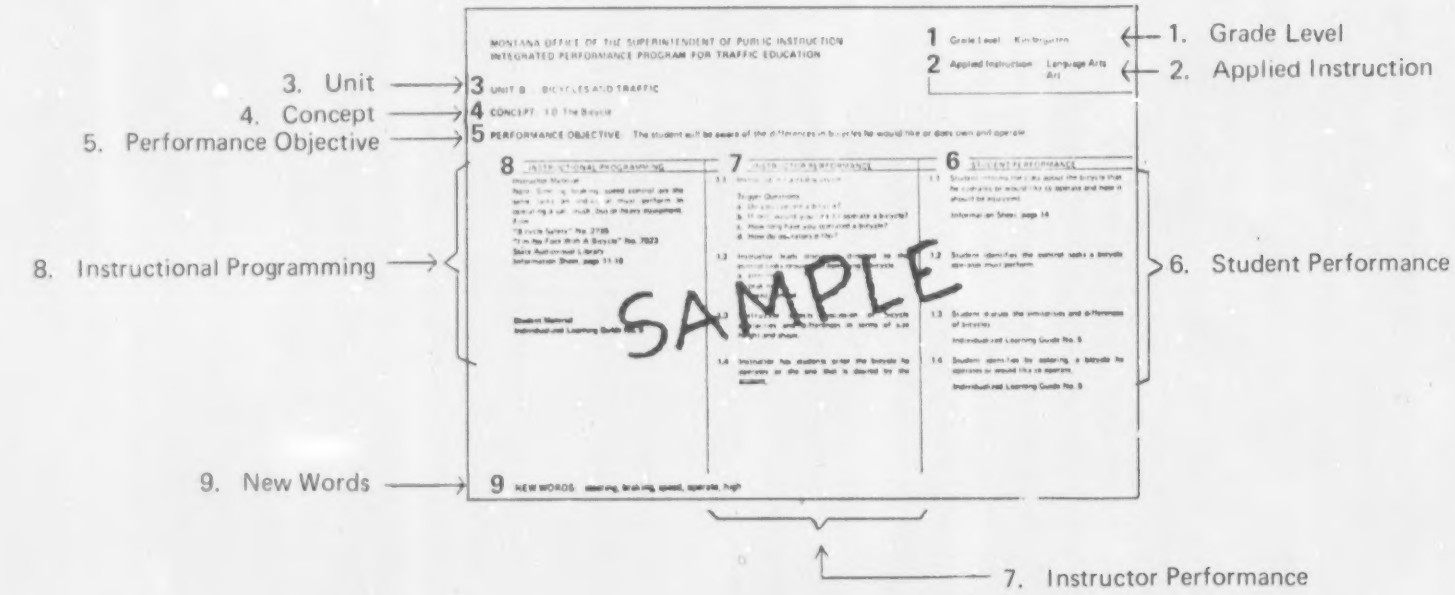
SLOW MOVING VEHICLE – The vehicle operates at 25 mph or less. It has a triangular shape with a wide red border band, orange interior and no lettering.

Standard Colors

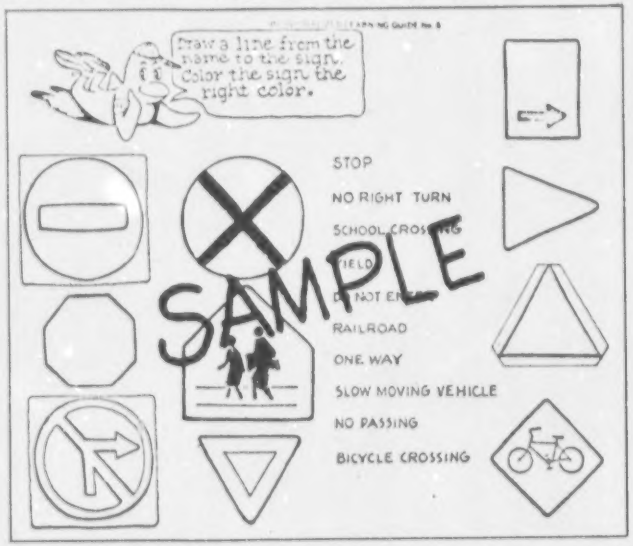
RED: Stop or prohibition. GREEN: Indicated movements permitted, direction guidance. BLUE: Motorist services guidance. YELLOW: General warning. BLACK: Regulation. WHITE: Regulation. ORANGE: Construction and maintenance warning. BROWN: Public recreation and scenic guidance.

SAMPLE

2. FORMAT SHEETS: *Format Sheets* are printed on yellow paper and provide the instructor with the following information: (1) Grade Level – indicates grade level for which this material is best suited; (2) Applied Instruction – indicates the subject matter in your existing curriculum that most closely applies to the specific concept being taught; (3) Unit – indicates the major topic being covered; (4) Concept – indicates a single idea to be taught; (5) Performance Objective – indicates what it is the student should know, feel, or be able to do at the completion of the instruction; (6) Student Performance Column – identifies what activity the student will be doing in order to learn the *Performance Objective*. Each student activity has a number. the first digit of that number corresponds with the *Concept* number. The second digit indicates which activity it is. This column also indicates which *Individualized Learning Guide Sheets* and *Transparency Original Sheets* are used with a particular student activity; (7) Instructor Performance Column – identifies what it is that the instructor will be doing to assist the student in achieving the *Performance Objective*. The number assigned to a specific instructor performance activity will correspond to an appropriate student performance activity; (8) Instructional Programming Column – lists the various instructional materials that a teacher can use to assist the student in learning the particular objective; (9) New Words – identifies the new safety words that are used with a particular *Concept*. This list is intended to enable the teacher to explain the words or substitute the words for something more appropriate. The new words list is not intended to be a spelling list.

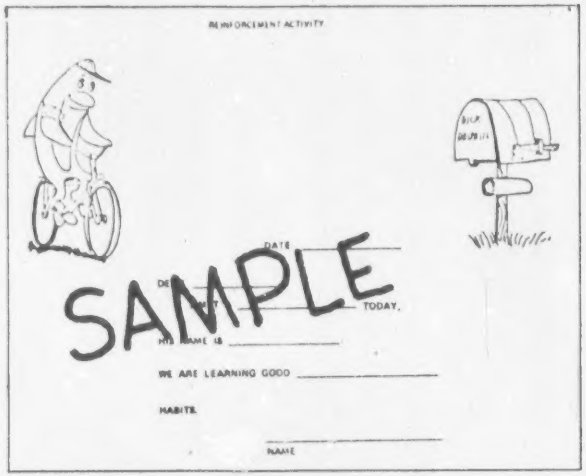


3. INDIVIDUALIZED LEARNING GUIDE SHEETS: *Individualized Learning Guide Sheets* are for use by students. They have been developed specifically to help the student do a particular activity which will allow him to achieve a specified performance objective. *Individualized Learning Guide Sheets* follow the *Format Sheet* that listed it for use as an instructional aid and can be duplicated in quantity.



4. TRANSPARENCY ORIGINAL SHEETS: *Transparency Original Sheets* are designed for reproduction into a transparency that could be used on an overhead projector.

5. REINFORCEMENT ACTIVITY SHEETS: *Reinforcement Activity Sheets* are used to explain ways in which the teacher can enrich or reinforce a learning concept.



6. APPENDICES: *Appendices* can be found at the back of the booklet and are printed on white paper and lettered. The items found in the appendices are an array of instructional materials that could be utilized by the instructor to enhance the learning process.

Armed with this brief description of the format, we hope you will find that you can more easily use these instructional materials. Best wishes to you in your efforts to promote human preservation.

INSTRUCTOR INFORMATION

Objectives
The overall objective of this integrated approach to traffic safety is to provide a tool for instruction of students in the knowledge and skill needed to cope with the traffic environment. This program maintains a positive approach to safety and presents a "way of life," not restrictive rules in a negative approach.

Integrated
Material has been provided to integrate not add to the already existing elementary program. Although multiple activities are provided a selective approach to relevant needs of your student is encouraged.

Time
A time span is not provided because of variation and need of flexibility for the instructor. Note that format sheets do not dictate time span. The integrated approach cannot be truly utilized if a time span is dictated.

Symbols
Symbols have proven to be effective in our society (i.e., by Smokey The Bear and Woodsey Owl). You are encouraged to use the symbols (Dick Dolphin, Bicyclist; Patty Penguin, Passenger; Seemore Seal, Pedestrian) as a means of communication. The choice of symbols was made because these three animal characters are not likely to appear in an adverse situation, such as dead. Expansion is allowable to other areas of safety endeavor such as water safety. Stylization of the characters in simple lines allows a teacher and student to draw the symbols easily. The symbols are creatures which a student is not taught to stay away from and fear. We hope you will enjoy the menagerie.

Commercial Material
Commercial materials are not emphasised since most items span several grade levels. Below are listed some sources which may be helpful aids.

T–shirts can be ordered in the school's colors with one of the three characters, Dick Dolphin, Patty Penguin, Seemore Seal. Character can be printed on the front or back of shirt. The cost for a minimum of 12 is $27.00 and any over 12 is $2.25 each. Order "Traffic Characters" at The Emporium, address:

Wild West Marketing
2 West Main
Bozeman, MT 59715

State size, color and number requested.

Verses and coloring, levels K–2, request free booklets:

"Children's Safety Lessons"
Kemper Insurance
Long Grove, IL 60049

Large pages for coloring about Montana safety, levels K–2, request "Coloring Book":

Montana Highway Patrol Bureau
1014 National Avenue
Helena, MT 59601

Folder "The ABC's of Bike Riding," levels 1–2. For additional folder subjects write:

Imagination, Inc.
1821 University Avenue
St. Paul, MN 55104

Also "10 Little Bike Riders," small folder of verses.

INFORMATION SHEET

Stories and activities in "Traffic Safety Guide For Teachers," inquire at local AAA office or write:

American Automobile Association
Traffic Engineering and Safety Department
1712 G. Street N.W.
Washington, D.C. 20006

Suitable for levels 1–3.

"The Bike Book" has hints to rider and bikes available, levels 2–5, write and refer to stock No.399.91:

National Safety Council
425 North Michigan Avenue
Chicago, IL 60611

Hints and check list for proper care of bike and rules for more advanced bike drivers, levels 3–5, request "Hi! Bike Pilots!":

Safety Department
Allstate Insurance Companies
Allstate Plaza
Northbrook, IL 60062

Booklet, presents compact lesson for bike behavior in cartoon fashion. Write for "Be An Expert Bike Driver," levels 4–6.

Channing L. Bete Co., Inc.
Greefield, MA 01301

Pamphlet to win the State Farm Safe Bicycling Award, levels 4–6, request at local State Farm Insurance Companies or write:

State Farm Insurance Companies
Bloomington, IL 61701

"Five Keys To Safe Bicycling" from the film "The Bicycle Driver" covers five areas to consider for being good drivers. Levels 5–6, request from:

Safeco Insurance Companies
Safeco Plaza
Seattle, WA 98185

Hints to teacher about activities, explains the why for some of the rules, suggestions for involvement, levels 4–6, inquire at local AAA office or write:

American Automobile Association
Safety Department
1712 G. Street N,W.
Washington, D.C. 20006

Request Traffic Safety Guide for Teachers.

General Map Reading Rules and the "how to" of reading maps. Levels 5–6, request Map Reading and Trip Planning Course, product No. 813, Packet of 35, shipping weight 3 lbs., cost $7.95.

Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, MO 63701

A message to Bike Riders and a safety check list, level 6:

The Texas Safety Association
1623 South Lamar Blvd.
Austin, TX 78704

For Level 6, a Bicycle Safety Information Test and Answer Sheet to be used as an aid to learning, request from:

School and College Department
National Safety Council
425 North Michigan Avenue
Chicago, IL 60611

Highlights for assisting you in the care and operation of your 10 or 5 speed bicycle. Level 6, request Schwinn Care and Operation Check List:

Schwinn Bicycle Co.
1856 North Kostner Avenue
Chicago, IL 60639

INFORMATION SHEET

General information for all levels available from:

Scott, Foresmen and Company
855 California Avenue
Palo Alto, CA 94394 (large poster with traffic signs and problem solving method);

Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, Mo 63701
(catalog for traffic education);

Kemper Insurance
Long Grove, IL 60049
(booklets);

Texas Safety Association
1623 South Lamar Blvd.
Austin, TX 78704
(general information);

Bicycle Institute of America
122 East 42nd Street
New York, N.Y. 10017
(statistics and information)

Insurance Institute for Highway Safety
1725 DeSales Street, N.W.
Washington, D.C. 20036
(general information).

Ideas

Additional popular ideas, gleaned from pilot schools, include making booklets with the Individualized Learning Guides, displaying posters in the school and in the community, and having upper grade students teach concepts to lower grade levels. Ideas contributed by teachers are incorporated in appropriate sections.

Film Library

Request all film through the Montana Audiovisual Library, Office of the Superintendent of Public Instruction, Helena, MT 59601, by title and number. Read film description and date film developed to assure current and relevant information is used.

Reinforcement Activities

Reinforcement activities to enrich and reinforce concepts are included for your selective use.

Problem Solving Method

A systematic process of identifing, predicting, deciding and acting, when confronted with a potentially dangerous situation, is essential to a student. A student must first identify the hazard, predict what will occur if certain actions are taken or not taken and then by calling on stored memory of past experience or knowledge, correctly decide on an appropriate action. Finally, he must act or react to successfully manage the encounter. These situation occur as a student crosses intersections, rides in the family car or on the school bus. They occur in the school and home environment, on the playground, and when riding bicycles or motor equipment.

Although information is received through all of the senses the greatest percent is preceived through vision. It is therefore essential to teach perception.

Visual perception is identifing, "mental decoding" of the information is predicting and deciding, then appropriate action can be taken.

In the early grade levels predicting is a difficult concept but not impossible. For some students identify, decide and act will provide a short version of the process.

Survival in many situations can depend on a problem solving method and it is the responsibility of the instructor to provide methods to the students. IPDA is a viable method in traffic education as well as in simple decisions.

Helpful aid: "Problem Solving In Everyday Safety"
A 92 transparency program in nine teaching units on Safety Education. Teaches safety consciousness as a frame of mind and mode of behavior. Most important the student is the one who arrives at the solution because he solves the problem himself. Distributed by:

Bumpa-Tel, Inc.,
P.O. Box 611
Cape Girardeau, MO 63701
Cost: $99.95 for complete set.

Montana Motor Vehicle Code "Rules of the Road" that affect bicyclists as of July 1, 1974 are listed below.

32–2184. EFFECT OF REGULATIONS. (a) It is a misdemeanor for any person to do any act forbidden or fail to perform any act required in this article (32–2184 to 32–2190).

(b) These regulations applicable to bicycles shall apply whenever a bicycle is operated upon any highway or upon any path set aside for the exclusive use of bicycles subject to those exceptions stated herein.

32–2185. TRAFFIC LAWS APPLY TO PERSONS RIDING BICYCLES. Every person riding a bicycle upon a roadway shall be granted all of the rights and shall be subject to all of the duties applicable to the driver of a vehicle by this act, except as to special regulations in this article (32–2184 to 32–2190) and except as to those provisions of this act which by their very nature can have no application.

32–2186. RIDING ON BICYCLES. A person propelling a bicycle shall not ride other than upon or astride a permanent and regular seat attached thereto.

32–2187. CLINGING TO VEHICLES. No person riding upon any bicycle, coaster, roller skates, sled, or toy vehicles shall attach the same or himself to any vehicle upon a roadway.

32–2188. RIDING ON ROADWAYS AND BICYCLE PATHS. (a) Every person operating a bicycle upon a roadway shall ride as near to the right side of the roadway as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction.

(b) Persons riding bicyles upon a roadway shall not ride more than two (2) abreast except on paths or parts of roadways set aside for the exclusive use of bicycles.

(c) Whenever a usable path for bicycles has been provided adjacent to a roadway, bicycle riders shall use such path and shall not use the roadway.

32–2189. CARRYING ARTICLES. No person operating a bicycle shall carry any package, bundle, or article which prevents the driver from keeping at least one (1) hand upon the handle bars.

32–2190. LAMPS AND OTHER EQUIPMENT ON BICYCLES. (a) Every bicycle when in use at nighttime shall be equipped with a lamp on the front which shall emit a white light visible from a distance of at least five hundred (500) feet to the front and with a red reflector on the rear of a type approved by the board which shall be visible from all distances from fifty (50) feet to three hundred (300) feet to the rear when directly in front of lawful upper beams of head lamps on a motor vehicle. A lamp emitting a red light visible from a distance of five hundred (500) feet to the rear may be used in addition to the red reflector.

(b) Every bicycle shall be equipped with a brake which will enable the operator to make the braked wheels skid on dry, level, clean pavement.

Be sure to check city ordinances for local laws.

Bicycle Size

For safety, a student's bicycle must be the right size. If the bike is too large or too small, it will be hard to control and will make the rider tired much more quickly.

If the bicycle is too large, it will sway from side to side and the rider can't come to a stop without leaning to one side. If it is too small, the rider will bump his knees and the bike will be difficult to steer.

Also, bicycling is easier and more fun if the leg muscles can be flexed fully. The muscles won't tire as easily as when the muscle doesn't get fully extended.

Measure the distance from the child's crotch to the floor while wearing flat heeled shoes to see what size bike a child needs. If the leg length is between 29½ and 35 inches, a 19" frame is recommended. From 35" to 38", a 23" or 24" frame is recommended. Above 38", an adult's bike (26" or more) can be ridden.

When buying a bike, one should also check for accessories. The reflector should be seen from at least 300 feet. The front light should be white and be visible at least 500 feet away. The horn or bell should be audible at least 100 feet away. There should be a carrier or basket according to needs. There should be a mud guard and a proper chain guard.

Stopping

Bicycles equipped with front wheel caliper brakes, common for high rise bicycles, can be stopped in a shorter distance than bicycle with rear coaster brakes, typical of conventional models. The data available indicates that with caliper brakes, stopping distances increase with rider weight. No such variation is found with coaster brakes. Rear coaster brakes and rear caliper brakes are equally effective in panic stops.

Generally, hard rear wheel braking is much more easily handled by the experienced driver than front wheel braking.

When the operator stands upright on the pedals, hard front wheel braking can lead to forward pitch-over of the rider. When this occurs, the motion is so rapid that there is little that the unsuspecting rider, even a very experienced one, can do to avoid a bad fall. Findings show that as long as the rider remains seated, on either type of bicycle, a potentially injurious pitch-over could not be induced with either bicycle. On dry, level asphalt, the test rider was able to make both bicycles pitch-over by standing on the pedals and applying hard front wheel braking. On a polished concrete surface, only the high rise bicycle could be made to pitch-over.

The bicycle must have a brake that takes hold quickly and makes the rear wheel skid on a dry, clean, level pavement. The arm of the coaster brake must be firmly attached to the frame; otherwise, braking power is lost. The brake pads on bicycles should be inspected weekly for wear and proper positioning. Brake cables should be checked for wear, fraying, and binding. Caliper brakes lose their efficiency when wet. Extreme caution must be exercised when riding in wet weather or in areas where heavy dew or puddles might wet the pads and rims.

INFORMATION SHEET

Traffic Control Signs

STOP – Means stop. It is a white message with white border on red background. The sign is octagon in shape.

YIELD – Means slow to 15 mph or less and proceed with caution. The YIELD sign is a downward pointing, equilateral triangle having a red border band leaving a white interior with the word YIELD in red inside the border band.

WARNING – Means danger ahead, proceed with caution. Coloring is traditionally black on yellow and the shape is diamond.

REGULATORY – Contains a specific instrution to the driver. The signs are rectangular with black lettering on a white background.

RAILROAD – Means a railroad intersects the path. The highway sign is yellow with black lettering and a black crossbuck. The railroad crossing sign is a white crossbuck with black lettering.

SCHOOL CROSSING – Means a crossing near a school. The signs are pentagon shaped, yellow in color with a black border band, lettering and figures. The school crossing sign has the figures walking within a crosswalk while the advance warning sign has just the figures.

GUIDE – Provides information. It is green with a white border band and lettering. For most guide signs the legend is so variable that there can be no rigidly standardized size.

NO PASSING ZONE – Identifies the conventional no passing pavement markings. The sign is pennant in shape and has black lettering and border band on a yellow background.

SLOW MOVING VEHICLE – The vehicle operates at 25 mph or less. It has a triangular shape with a wide red border band, orange interior and no lettering.

Standard Colors

RED: Stop or prohibition. GREEN: Indicated movements permitted, direction guidance. BLUE: Motorist services guidance. YELLOW: General warning. BLACK: Regulation. WHITE: Regulation. ORANGE: Construction and maintenance warning. BROWN: Public recreation and scenic guidance.

Traffic Control Signals

Each traffic signal has a specific meaning for the bicycle operator.

GREEN LIGHT – indicates that the bicyclist may proceed if the way is clear.

RED LIGHT – indicates that the bicyclist is to stop.

YELLOW LIGHT – is a caution light indicating that the bicyclist is not to proceed through the intersection until the light turns green, unless already in or very near to the intersection when the light turned yellow.

GREEN ARROW – indicates that the bicyclist may proceed cautiously in the direction that the arrow is pointing.

FLASHING RED LIGHT – indicates that the bicyclist is to come to a complete stop and then proceed if the way is clear.

FLASHING YELLOW LIGHT – indicates that the bicyclist is to reduce his speed and then proceed with caution.

Traffic Control Markings

Markings have definite and important functions to perform in a proper scheme of traffic control. In some cases, they are used to supplement the regulations or warnings of other devices such as traffic signs and signals.

Pavement markings have definite limitations. They are obliterated by snow, may not be clearly visible when wet, and may not be very durable when subjected to heavy traffic.

Longitudinal pavement marking color use is as follows: Yellow lines delineate the seperation of traffic flows in opposing direction or mark the left boundary of the travel path at locations of particular hazard. White lines delineate the seperation of traffic flows in the same direction. Red markings delineate roadways that shall not be entered or used by the viewer of those markings.

Broken lines are permissive as opposed to solid lines being restrictive in character. Width of lines indicates the degree of emphasis. Double lines indicate maximum restrictions.

Curbs painted red or yellow indicate no parking.

Horizontial pavement markings serve as a guide for pedestrians. At non-intersectional locations, these markings legally establish the crosswalk. Horizontal line may also indicate a stop line to the bicyclist.

Other markings may indicate a railroad crossing, directional arrows and word markings.

Hand Signals

The use of hand signals now is commonly accepted as a safe riding practice. The motor vehicle laws of Montana require such signals. Signaling intention to turn, slow down, or stop gives the motorist behind, as well as the one approaching, an opportunity to anticipate the cyclist's movement. The bicycle operator should signal well in advance so that both hands are on the handlebars when the maneuver is made. This is especially important when the bicycle is equipped with hand brakes. Since all signals are made with the left hand, it is important that the control for the rear brake is located on the right handlebar. It is a simple matter to switch the brake control if necessary. Unless local regulations differ, standard hand signals are as follows: Left turn–hand and arm extended horizontally; Right turn–hand and arm extended upward; Stop and/or slow–hand and arm extended downward.

In order to turn left at intersections in the business area or where there is heavy or high-speed vehicular traffic, a bicyclist should dismount and follow the pedestrian crosswalk to the far right corner, then proceed across at right angles. In this way, he crosses one direction of traffic at a time. He should avoid heavily traveled routes if others are available. If riding on the sidewalk is allowed by ordinance, or if the driver is too young to be allowed in traffic, care should be taken when riding on the sidewalk to avoid striking or alarming pedestrians.

Skills

It is imperative that the cyclist develop skill in balancing and pedaling to avoid swerving into traffic, running off the edge of a sidewalk or highway, and to avoid hitting a pedestrian or fixed object at a narrow passing. Parents have a responsibility to be sure the child has the skill to cope with traffic before permitting him to drive on the street. Learners should be taught to coast with the pedals level (horizontal) in readiness to apply the brakes, and to avoid scraping the lower pedal on turns.

When overtaking slow moving vehicles, a cyclist must be careful to avoid being struck or crowded by vehicles about to turn into a driveway or alley. The cyclist must be especially alert, when passing parked cars, for doors which might be opened in his path.

Parked cars with someone in the driver's seat should be given as wide a berth as possible. A cyclist should never ride into the roadway from the yard, driveway or alley without looking carefully in all directions.

It is highly desirable to remain inside the car during an automobile collision. Not so with a bicycle. The rider has to free himself from the bicycle immediately when a collision appears imminent. Design features that can be impacted by the rider or hinder his ability to free himself, such as high rise handlebars and gear-shift levers, should be avoided. The horizontal frame member in front of the rider on all boys' bicycles tends to make it more difficult for the rider to free himself from the bike. Therefore, learners and novice riders should use girls' style bicycles since they are easier to dismount in case of a collision.

Carrying more passengers than the bicycle is designed and equipped for is dangerous. Passengers obstruct the driver's vision, make balancing difficult, and increase the danger of getting part of the body or clothing caught in the spokes. Two on a bicycle also greatly increases the stopping distance. The "polo" or "banana" seat on the high rise bicycle appears to be designed to carry two; however, such is not the case.

All human activity involves a degree of risk. What becomes important then is instilling in student a personal and social attitude toward their choices of action in traffic interaction. For this reason, at every age, the students are encouraged to consider the consequencies.

The primary consideration becomes how much risk a person is ready to accept in his life style.

Intersections

CONTROLLED – (a) If more than one vehicle operator arrives at a four-way stop at the same time, give the driver on the right the right-of-way, but only after they have come to a full stop. Courtesy dictates which driver proceeds.

(b) If only one of the crossroads has a stop sign, the driver in that lane must stop, then yield to all other vehicles and pedestrians.

(c) If there is a red light or stop sign, the bicyclist should stop behind the white line or marked or unmarked crosswalk.

UNCONTROLLED – (a) When two bicyclists arrive at an uncontrolled intersection at about the same time, the bicyclist on the left must yield the right-of-way to the driver on the right.

(b) The bicyclist should never enter the intersection until it is safe to enter.

(c) The bicyclist should yield the right-of-way to pedestrians that are in the crosswalk.

(d) The bicyclist should never make a turn in front of a moving vehicle.

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Facts

For the five years, 1965-69, only one year,1967, shows an even division between urban and rural areas for bicycle-motorcar fatalities; for the other four years, somewhat more than half occurred in rural areas (defined as having less than 2,500 inhabitants, except those areas classified "urban" by the U.S. Census Bureau).

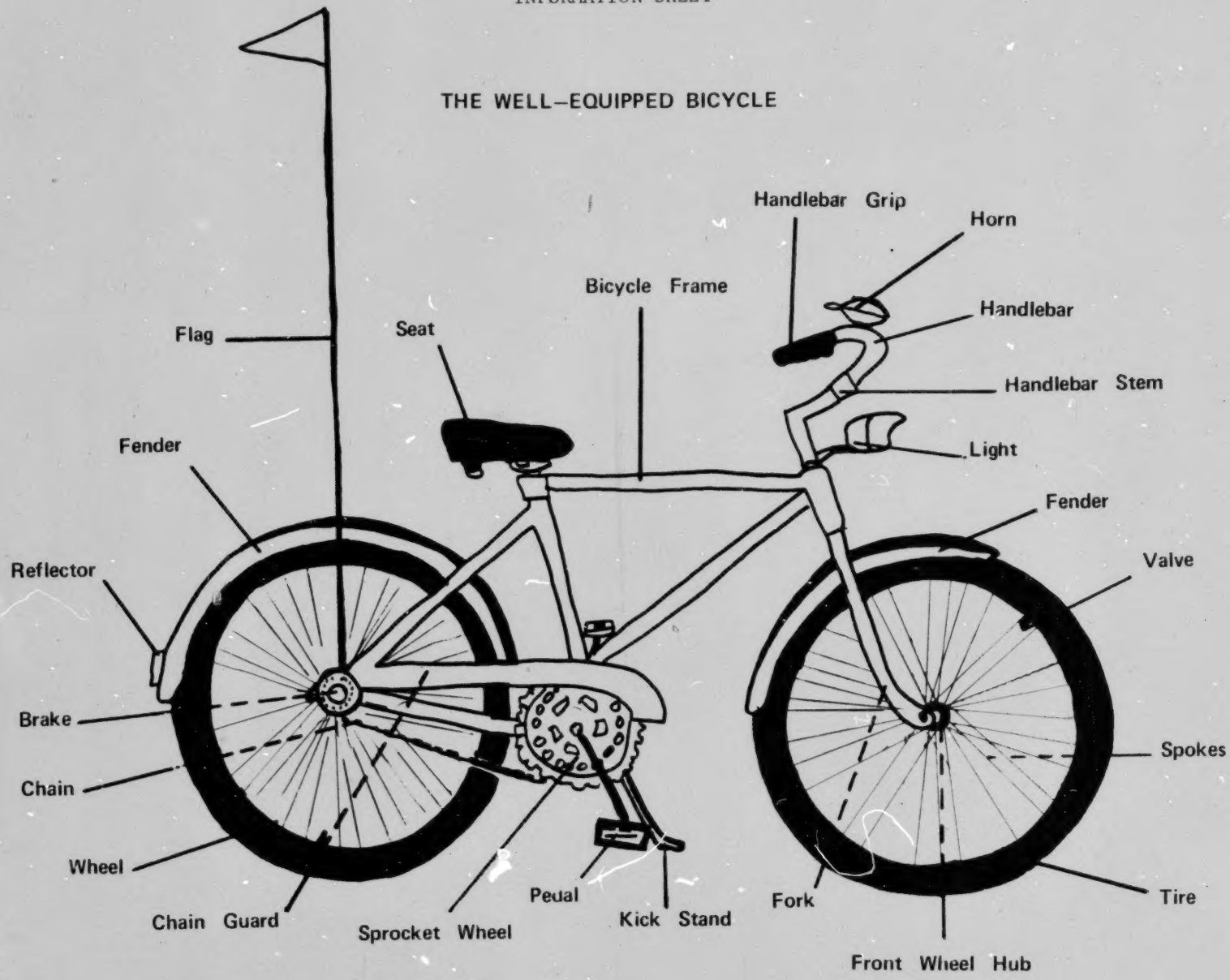
Nonfatal accidents are more likely to occur in residential areas (city streets), while fatal accidents are most likely to occur in open country (major and minor roads). This is probably related to the higher speeds of motorcars outside the city or town. Compared with all fatal motor vehicle accidents, fatal bicycle accidents show a larger proportion occurring where there is some kind of intersection of vehicle pathways. This is also true of nonfatal accidents.

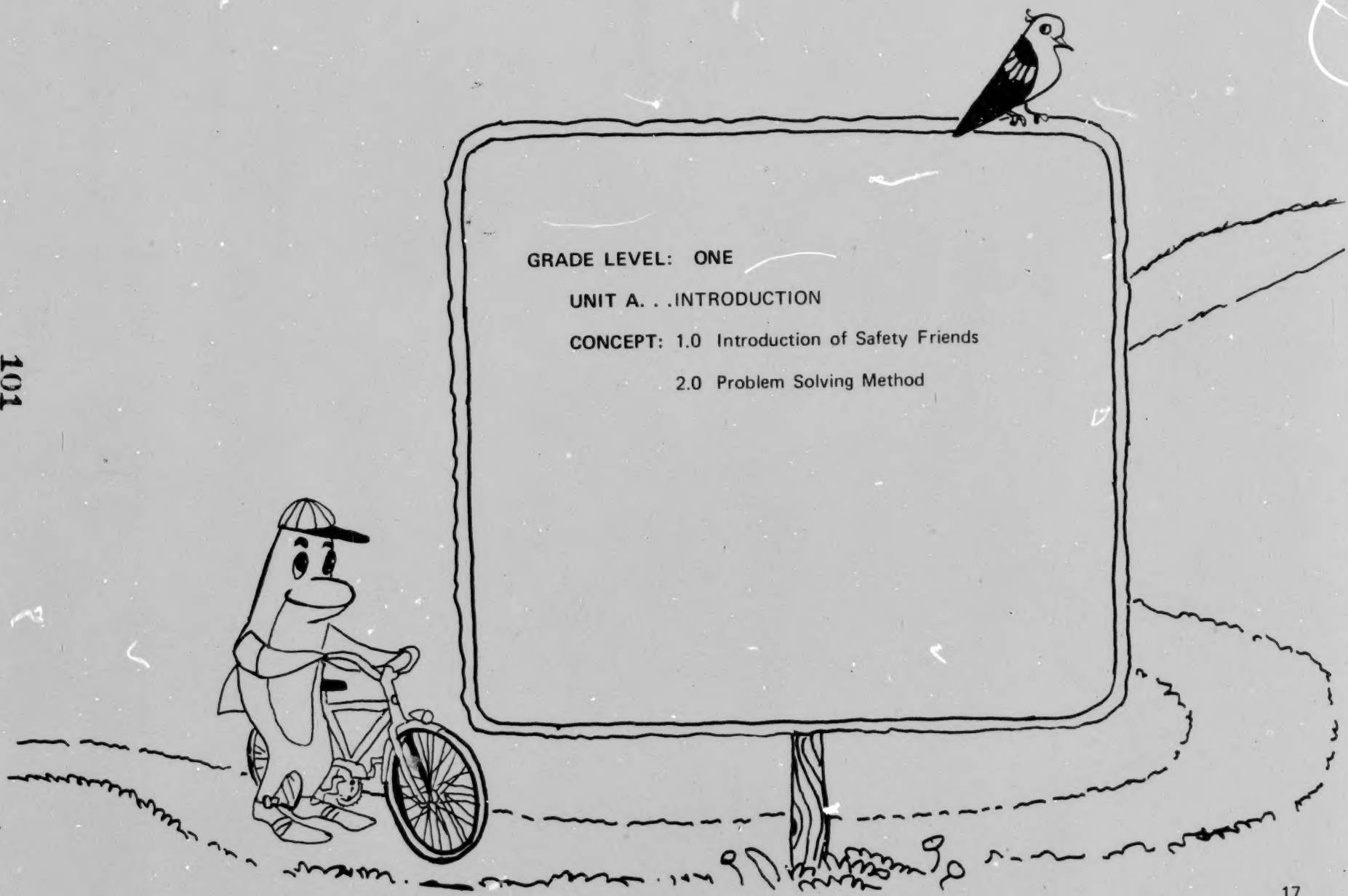
One study found 96% of all bicycle-motorcar collisions occurred within one mile from home, and 57% within one block; also, intersections of some kind were the most frequent site of collisions: ". . . 82% of collisions relate to maneuvers by the bicyclist to enter into, to turn across, or cross through a flow of traffic."

In two studies, about 40% of the cyclists of grade-school age, said they ride on the right side of the street, 40–50% said they ride on both sides, and 10–15% said they ride on the left side. Some ride on the sidewalk. Apparently, there is some confusion, lack of knowledge, or disregard with respect to rules and regulation of safe operating procedures.

*Bicycle fatalities will exceed 10,000 in 1974.
*Ninety-percent of bicyclist fatalities due to bicycle-car collisions are males.
*In a study of 275 collisions with cars, 93% involved male bicylcists.
*In a 5 year study, over 60% of the bicycle-car fatalities and 75% of the injuries were in the age group of five through fourteen.
*After school and early evening hours are the peak periods for collisions.
*In a great number of bicycle-car collisions, the driver of the car is not cited for a violation.
*Twenty-percent of the bicycle collisions with cars involved a passenger or a hand-held load.
*It has been pointed out, many bicyclists were not riding their own bicycle.

THE WELL–EQUIPPED BICYCLE





GRADE LEVEL: ONE

UNIT A. . .INTRODUCTION

CONCEPT: 1.0 Introduction of Safety Friends

2.0 Problem Solving Method

101

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: One

Applied Instruction: Language Arts
Art
(Reading Readiness)

UNIT A...INTRODUCTION

CONCEPT: 1.0 Introduction of Safety Friends

PERFORMANCE OBJECTIVE: The student will identify the name and activity of each of the safety friends.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 7 **Student Material** Transparency Original No. 1-3 Individualized Learning Guide No. 2 **Reinforcement Activity** Student can make very large lifelike cutouts of new friend. Appendix C Make large face of Dick Dolphin and paste on a sack to make a puppet to act out safe procedures, or use a finger puppet which can be made by cutting finger holes in a picture of Dick Dolphin. Letter to parents, page 22	1.1 The instructor/student will discuss the safety friends and the activity they are involved in.	1.1 Student will identify Dick Dolphin and determine the involvement of Dick Dolphin as a friend learning about bicycle operation. Transparency Original No. 1-3 Individualized Learning Guide No. 2

NEW WORDS: friend, safety, mile, pedestrian, passenger, bicyclist, operator

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I AM PATTY

I AM A PASSENGER.

WHAT BIRD AM I?

I AM DICK

I AM A BICYCLIST.

WHAT ANIMAL AM I?

I AM SEEMORE

I AM A PEDESTRIAN.

WHAT ANIMAL AM I?

DIRECTIONS: FILL IN THE BLANKS.

MY FRIEND'S NAME IS _____.

A POLICEMAN IS A _____.

MY FRIEND'S FAVORITE ANIMAL IS _____.

_____

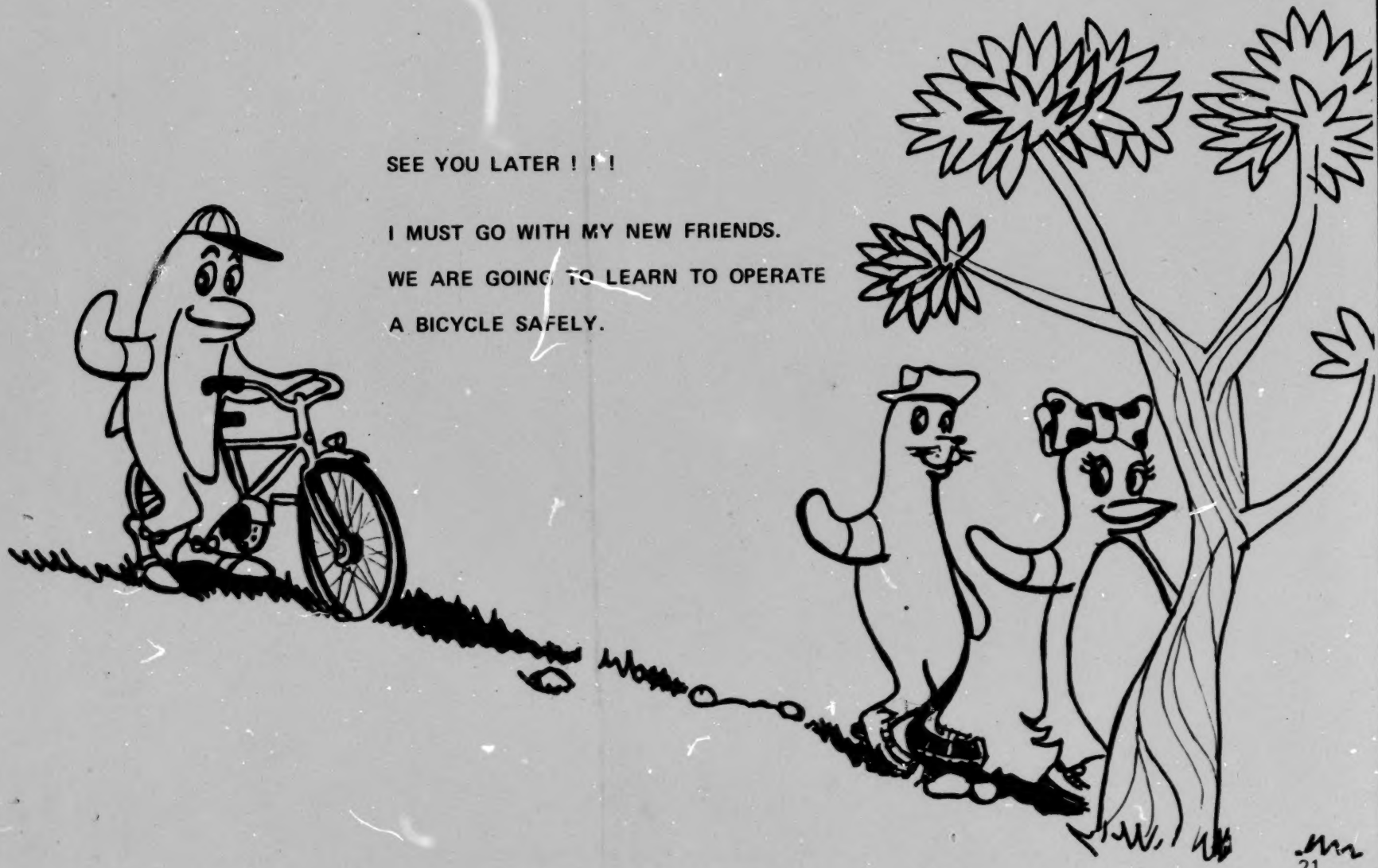
Colored by _____

SEE YOU LATER ! ! !

I MUST GO WITH MY NEW FRIENDS.

WE ARE GOING TO LEARN TO OPERATE

A BICYCLE SAFELY.



DATE _____

DEAR _____,

I MET A _____ TODAY

HIS NAME IS _____.

WE ARE LEARNING GOOD _____

HABITS.

_____

NAME

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MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: One

Applied Instruction: Language Arts
Math

UNIT A. . .INTRODUCTION

CONCEPT: 2.0 Problem Solving Method

PERFORMANCE OBJECTIVE: Student will understand the Identify, Decide and Act problem solving method.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: This formula is valuable in all basic thinking processes. For this level explain it as: IDENTIFY – See and/or hear traffic. DECIDE – Know what to do. ACT – Do. The complete formula for this problem solving method is Identify the problem or situation; Predict what might happen; Decide what course of action to take; Act–take effective action immediately. Information Sheet, page 9 "Problem Solving" **Student Material** Individualized Learning Guide No. 4 **Reinforcement Activity** Relate situations to the student which occur in the area around the school that can be used in problem solving method.	2.1 Instructor explains the Identify, Decide and Act problem solving method.	2.1 Student will learn to use the Identify, Decide and Act problem solving method. Individualized Learning Guide No. 4

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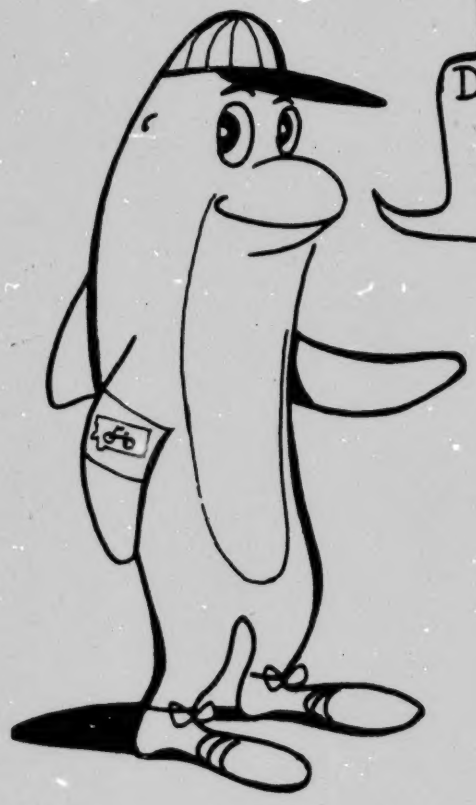
NEW WORDS: habit, identify, decide, act

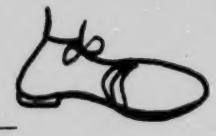
INDIVIDUALIZED LEARNING GUIDE No. 4

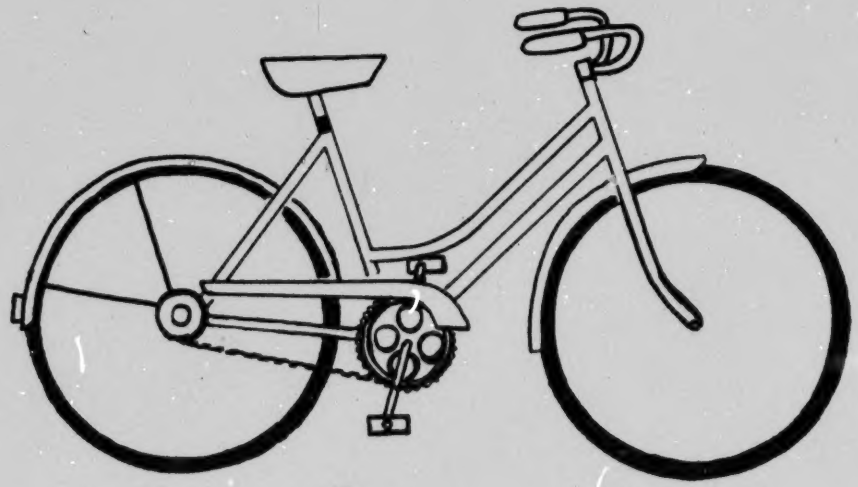
FILL IN THE NUMBERS

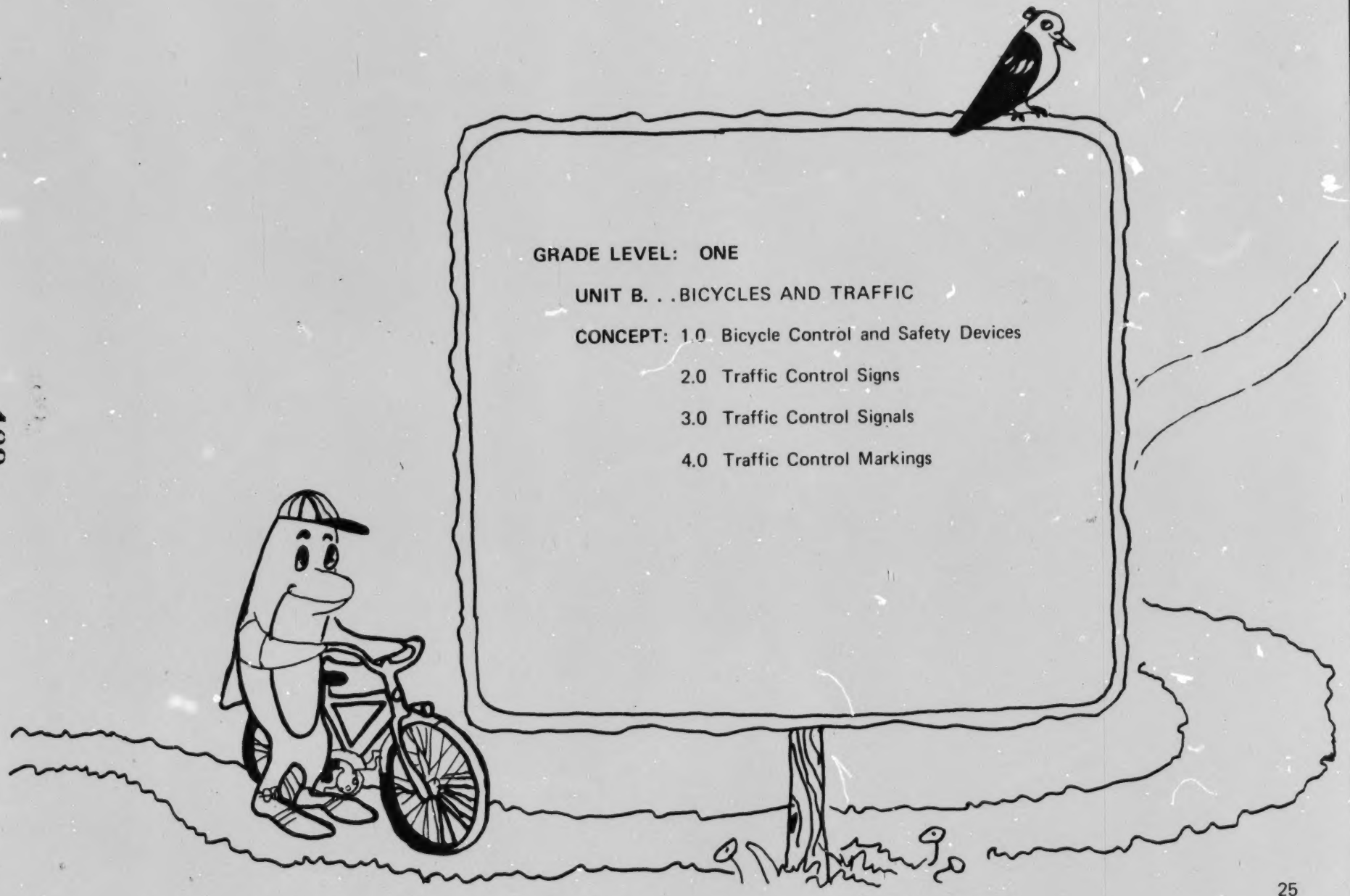


I USE MY ____ AND ____ TO IDENTIFY.

I USE MY ____ TO DECIDE WHAT TO DO.

I USE MY ____ AND ____  TO ACT.





GRADE LEVEL: ONE

UNIT B. . .BICYCLES AND TRAFFIC

CONCEPT: 1.0 Bicycle Control and Safety Devices

2.0 Traffic Control Signs

3.0 Traffic Control Signals

4.0 Traffic Control Markings

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: One

Applied Instruction: Language Arts
Art

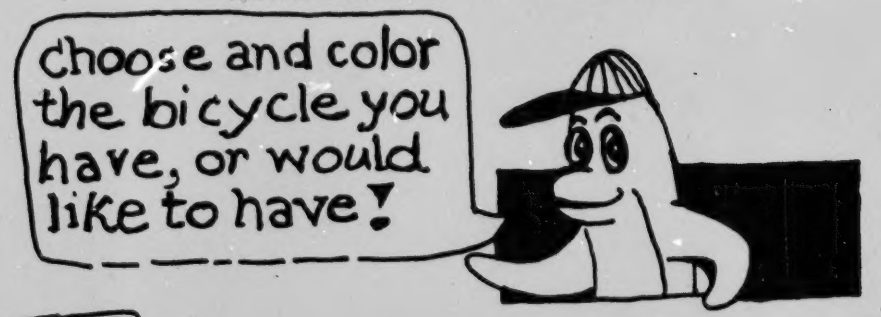
UNIT B. . .BICYCLES AND TRAFFIC

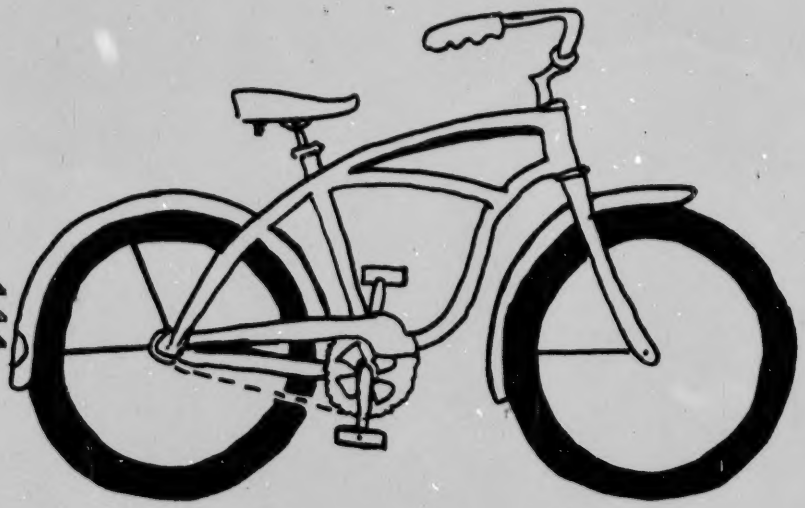
CONCEPT: 1.0 Bicycle Control and Safety Devices

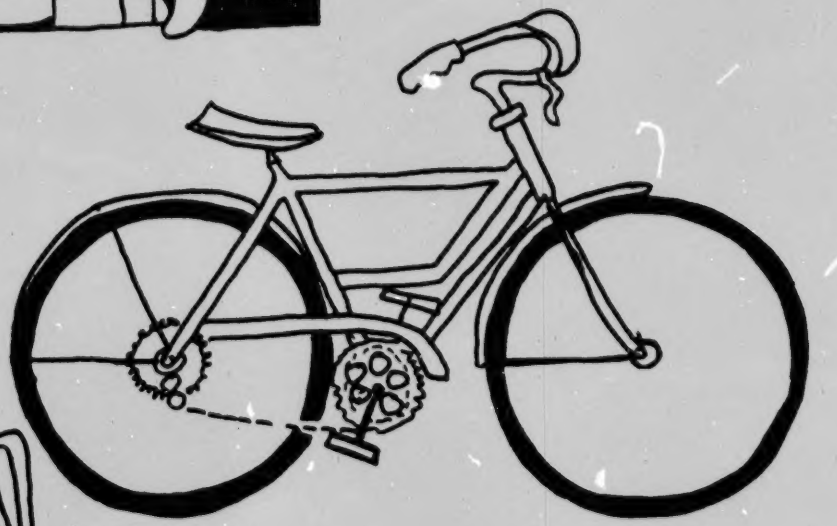
PERFORMANCE OBJECTIVE: The student will become familiar with design, safety and control devices on a bicycle.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 11-16 Film: "Bicycle Safety" No. 2795 "You and Your Bicycle" No. 2184 State Audiovisual Film Library	1.1 Instructor asks the following questions: **Trigger Questions** a. Which bicycle would you like to operate? b. How is the bicycle different from the other two bicycles in steering, braking and speed control?	1.1 Student colors a bicycle which he would like to operate. Individualized Learning Guide No. 5
Student Material Individualized Learning Guide No. 5-8 Transparency Original No 6-7	1.2 Instructor explains the safety devices and their proper use.	1.2 Student identifies safety and control devices on a bicycle Transparency Original No. 6-7 Individualized Learning Guide No. 8
Reinforcement Activity A bicycle brought to the classroom to illustrate safety devices and proper size. Information on proper size bike, included in teacher information sheets, can be sent home to parents.	1.3 Instructor discusses how size, seat adjustment and handle bar adjustment influence operator control. Note: An operator should be able to place a foot on the ground while seated on the bicycle.	1.3 Student determines the effects of bicycle size on control, balance and operator tasks.

NEW WORDS: device, balance, steering, braking, control, adjustment





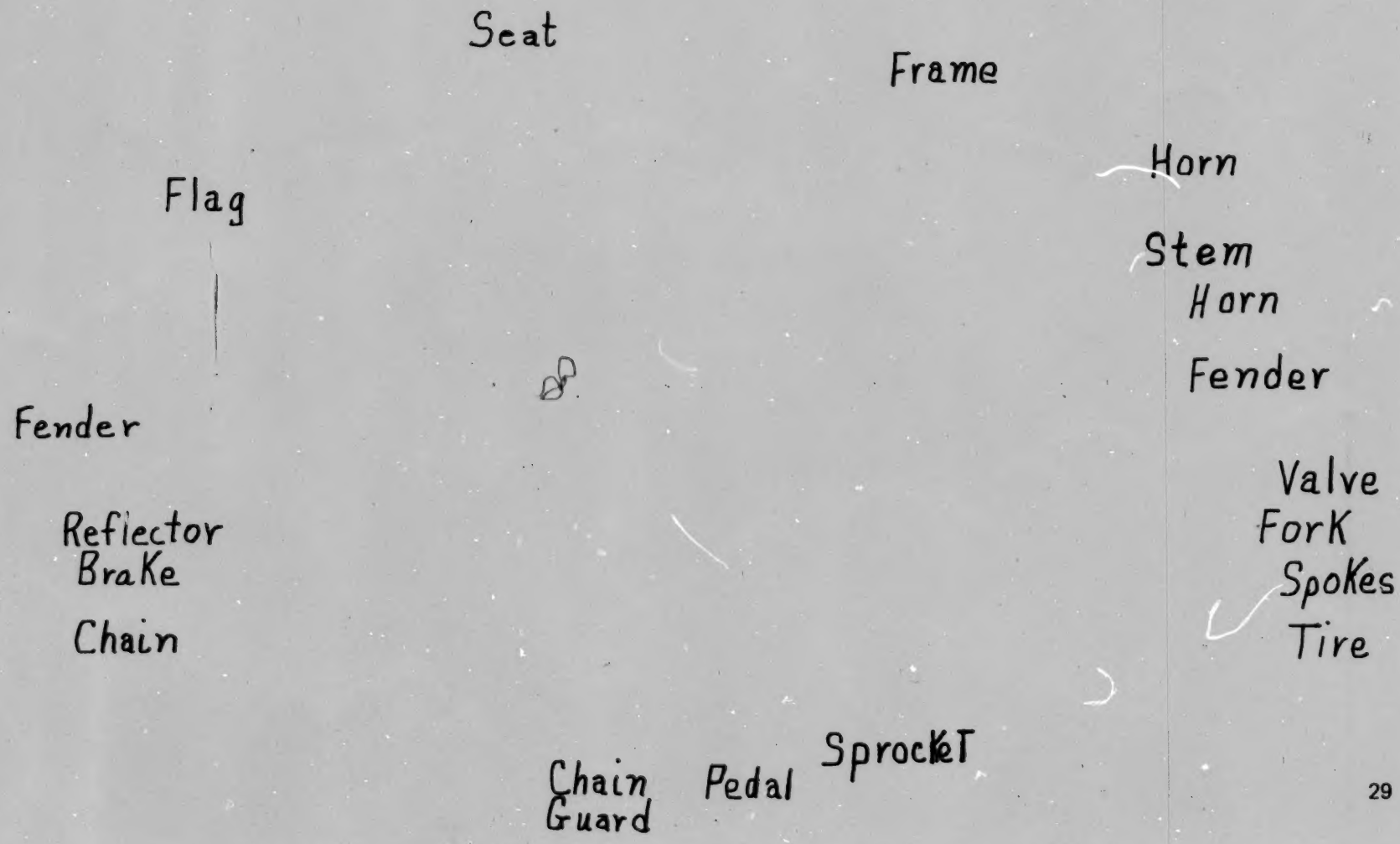


111

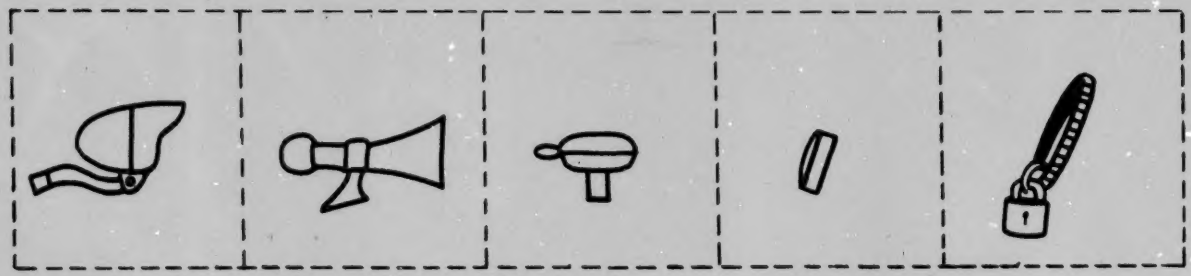
TRANSPARENCY ORIGINAL No. 6

112

TRANSPARENCY ORIGINAL No. 7
(Overlay)



113



Cut and paste the safety items on the bicycle.

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: One

Applied Instruction: Art
Language Arts
Math

UNIT B. . .BICYCLES AND TRAFFIC

CONCEPT: 2.0 Traffic Control Signs

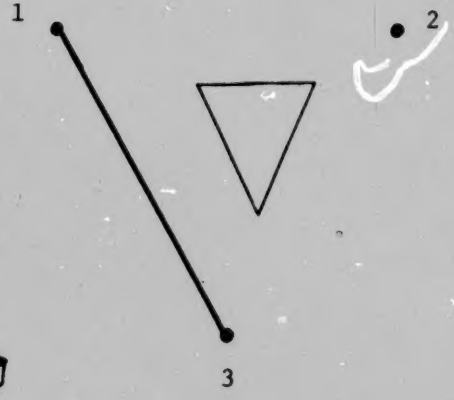
PERFORMANCE OBJECTIVE: The student will recognize signs by color, shape, lettering and will demonstrate correct response to the signs.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet: color, shape and lettering of basic signs, page 12. Large signs appendix F-L	2.1 Instructor explains the significance of the shape, color and lettering of basic signs: a. STOP b. YIELD c. WARNING d. REGULATORY e. RAILROAD	2.1 Student recognizes by color, shape, and lettering the signs: a. STOP b. YIELD c. WARNING d. REGULATORY e. RAILROAD Individualized Learning Guide No. 9
	2.2 Instructor asks students to demonstrate proper operator reaction to the basic signs.	2.2 Student will be able to demonstrate proper operator reaction to the basic signs.
Student Material Individualized Learning Guide No. 9 **Reinforcement Activity** Signs in the locality viewed on a field trip.		

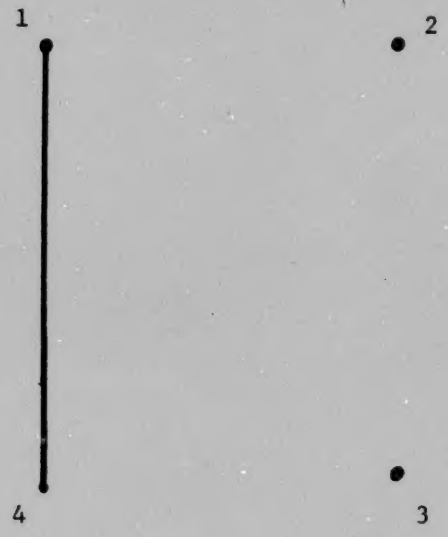
NEW WORDS: message, yield, regulatory, warning, border, operator, caution, proceed, crossbuck, prohibit, slash, lane placement

CONNECT THE NUMBERED DOTS TO MAKE THE SIGN. COLOR THE SIGN!

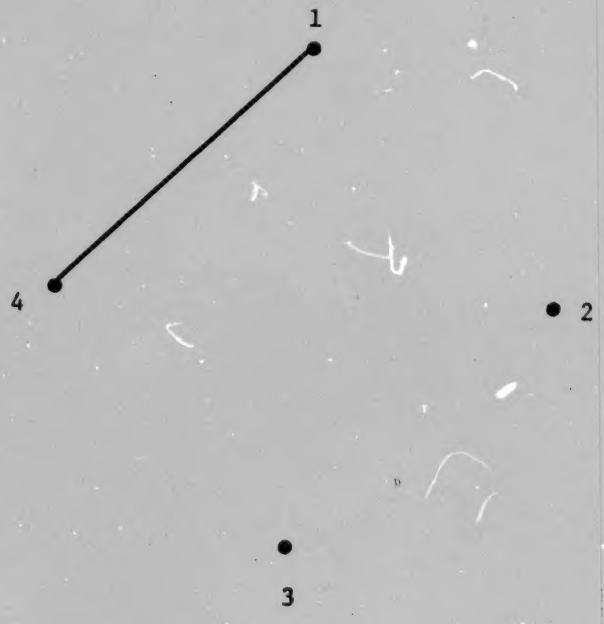
COLOR - RED



COLOR - RED AND WHITE



COLOR - WHITE



COLOR - YELLOW

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: One

Applied Instruction: Social Studies
Language Arts

UNIT B. . .BICYCLES AND TRAFFIC

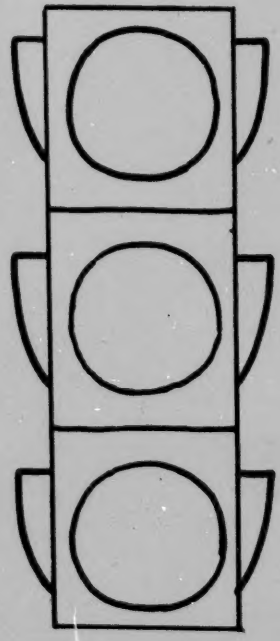
CONCEPT: 3.0 Traffic Control Signals

PERFORMANCE OBJECTIVE: The student will identify the operator responsibilities required by traffic lights.

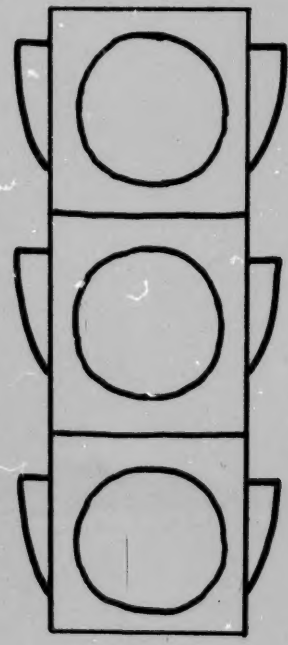
INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet: meaning of lights, page 13 **Student Material** Individualized Learning Guide No. 10 **Reinforcement Activity** Instructor constructs a traffic light from illustration, Appendix L.	3.1 Instructor/student discuss the responsibilities of the operator at a traffic light.	3.1 Student states the action required by the traffic lights. Individualized Learning Guide No. 10

NEW WORDS: traffic signal, responsibilities, control

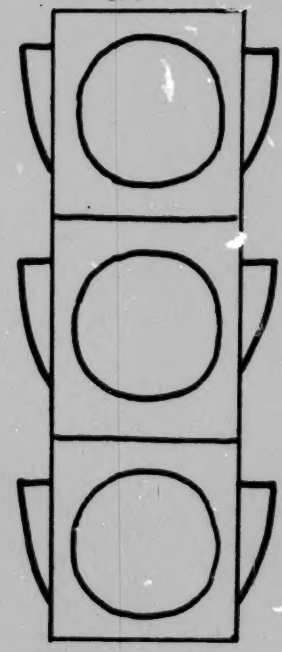
STOP



CAUTION



GO



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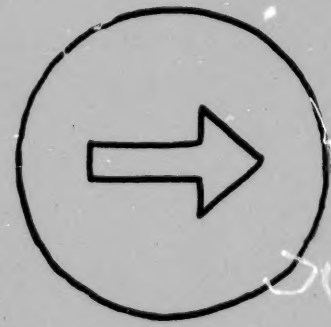
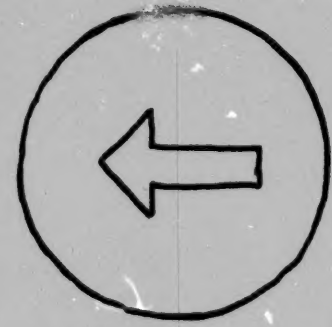


Right turn



Left turn

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: One

Applied Instruction: Language Arts
Art

UNIT B. . .BICYCLES AND TRAFFIC

CONCEPT: 4.0 Traffic Control Markings

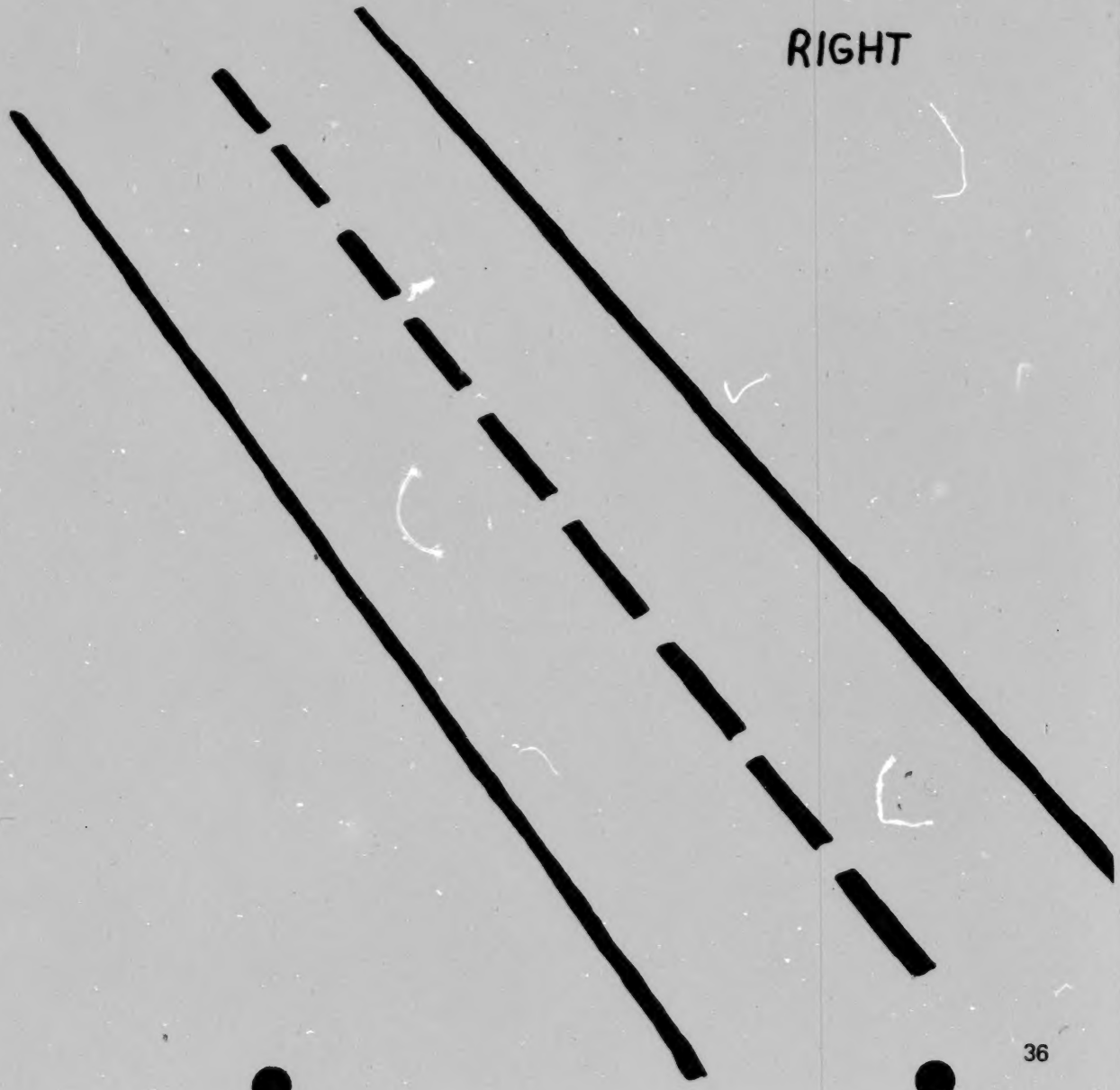
PERFORMANCE OBJECTIVE: The student will recognize lane markings and proper lane placement.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Film: "The Day The Bicycles Disappeared" No. 6616 State Audiovisual Film Library Information Sheet, page 13	4.1 Instructor discusses reasons for lane marking and lane placement. **Trigger Questions** a. Do your parents drive on the left or right? b. Why should a bicycle stay on the right?	4.1 Student recognizes lane marking and proper bicycle lane placement. Individualized Learning Guide No. 11
	4.2 Instructor discusses vehicle direction and proper positioning.	4.2 Student determines proper positioning and direction of a bicycle. Individualized Learning Guide No. 12
	4.3 Instructor discusses "drifting" over the center line. **Trigger Question** a. What would happen if you cross the center line?	4.3 Student is aware of the dangers in "drifting" over the center line. Individualized Learning Guide No. 11
Student Material Individualized Learning Guide No. 11-12	4.4 Instructor discusses causes of overcorrection. a. Sharp turns. b. Inattention.	4.4 Student recognizes causes for overcorrection.
Reinforcement Activity Draw lane markings on the board and explain local area markings.		

NEW WORDS: lane placement, drifting, correction, overcorrection

LEFT

RIGHT



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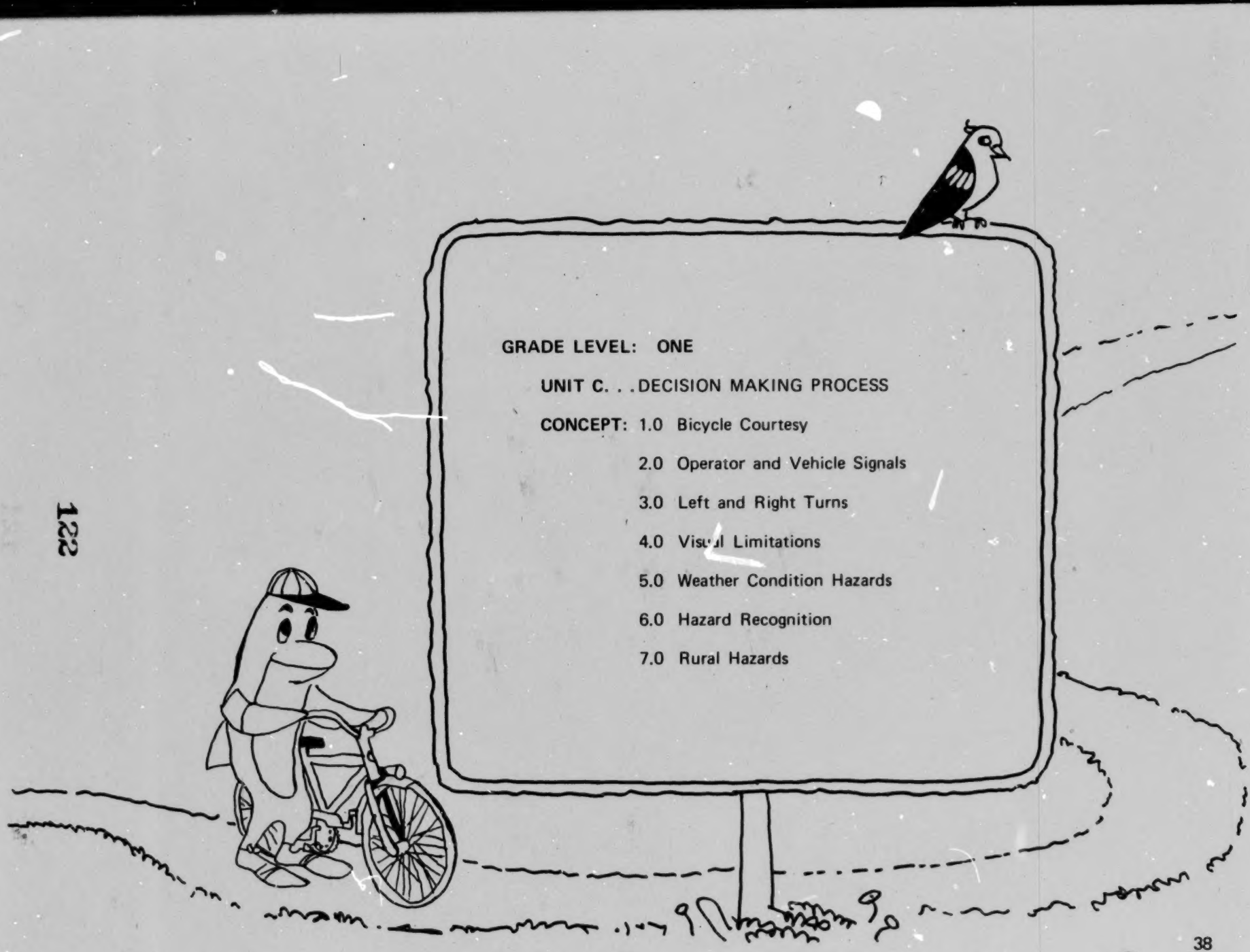

GRADE LEVEL: ONE
UNIT C. . .DECISION MAKING PROCESS
CONCEPT: 1.0 Bicycle Courtesy
2.0 Operator and Vehicle Signals
3.0 Left and Right Turns
4.0 Visual Limitations
5.0 Weather Condition Hazards
6.0 Hazard Recognition
7.0 Rural Hazards

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: One

Applied Instruction: Language Arts
Health
Physical Education

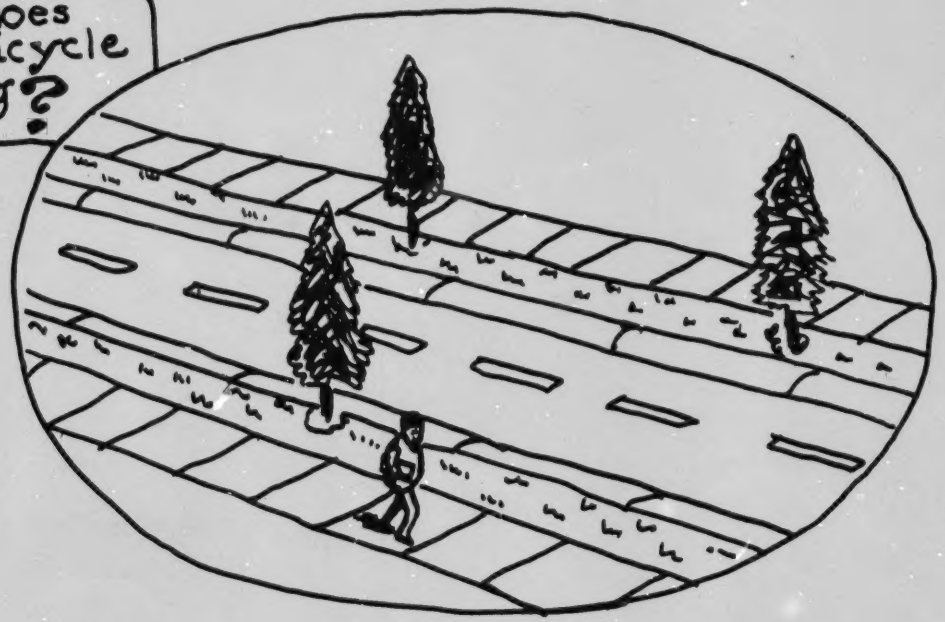
UNIT C. . .DECISION MAKING PROCESS

CONCEPT: 1.0 Bicycle Courtesy

PERFORMANCE OBJECTIVE: The student will identify habits of bicycle courtesy.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Film: "You and Your Bicycle" No. 2184 State Audiovisual Film Library	1.1 Instructor uses an oral preassessment to check students for knowledge of bicycle courtesy.	1.1 Student orally discusses bicycle courtesy.
	1.2 Instructor initiates a group discussion about bicycle courtesy. Students are encouraged to explain good situations. **Trigger Questions** a. Where is it best to park your bicycles at home? b. Should you ride on the left side or right side of the roadway?	1.2 Student explains good courteous habits of a bicyclist. Student demonstrates understanding of courtesy by orally stating or moving the bicycle to correct area. Transparency Original No. 13
Student Material Transparency Original No. 13 **Reinforcement Activity** Plan a pretend bicycle trip, practice using hand signals.	1.3 Instructor encourages students to demonstrate bicycle courtesy situations. **Trigger Questions** a. Did you notice the bicycles in the rack at school today? b. Tell me, when you were coming to school did you see or do something courteous?	1.3 Student looks for courteous habits around the school and on the way home. Student is able to recognize discourteous situations.

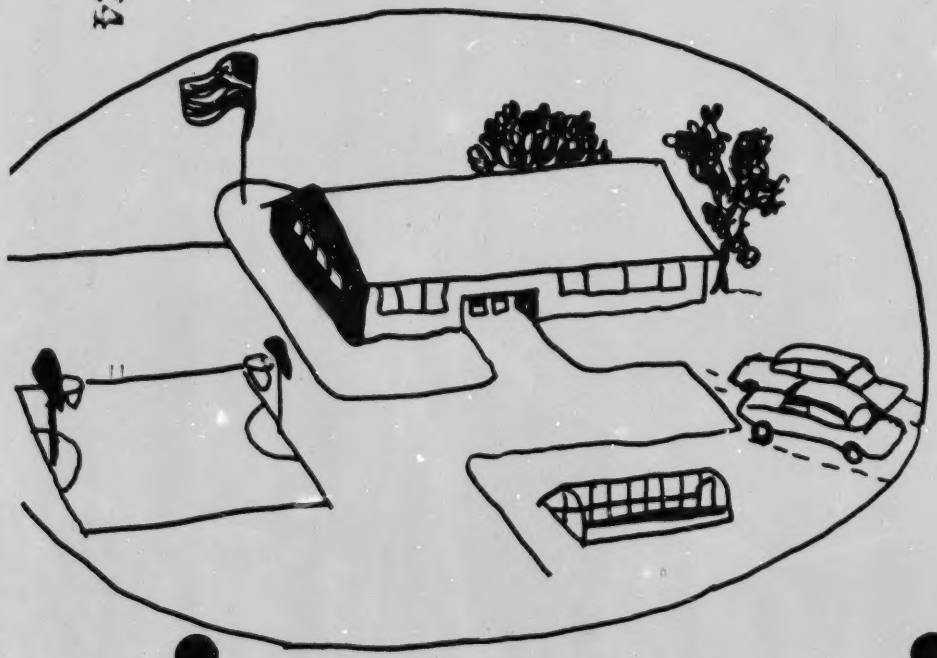
NEW WORDS: courtesy, area

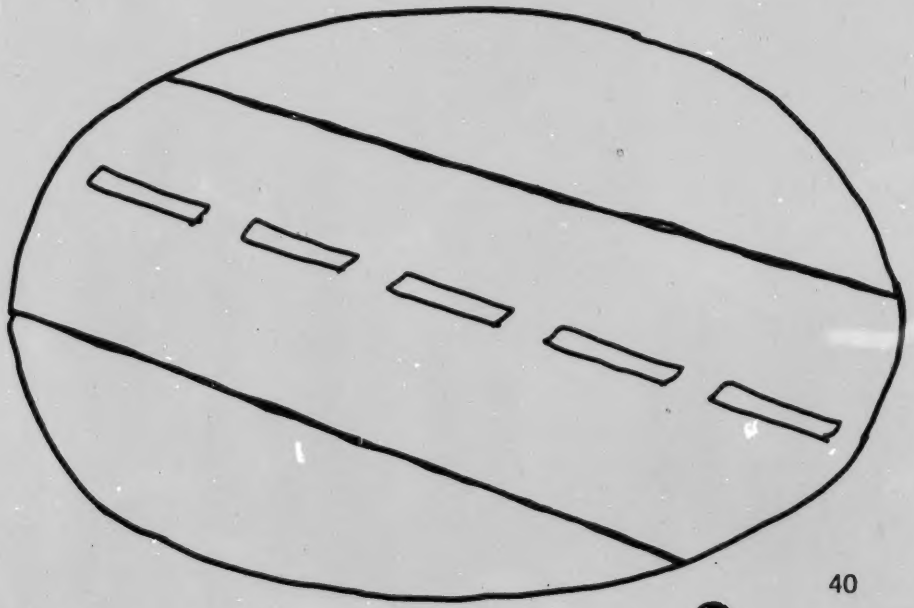


WEAVING YOUR BICYCLE
IS A DANGEROUS SPORT,
ONLY A CARELESS DRIVER
IS THE WEAVING SORT.

CIRCLING AND WINDING
ON A NARROW STREET,
COULD END UP AN ACCIDENT,
SHOULD SOMEONE YOU MEET!

124





MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: One

Applied Instruction: Physical Education

UNIT C. . .DECISION MAKING PROCESS

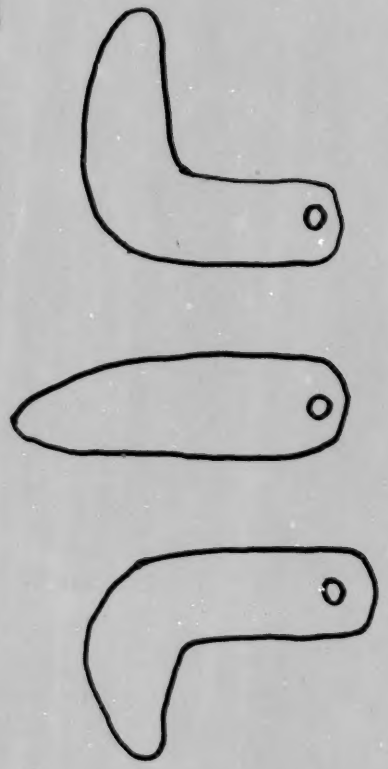
CONCEPT: 2.0 Operator and Vehicle signals.

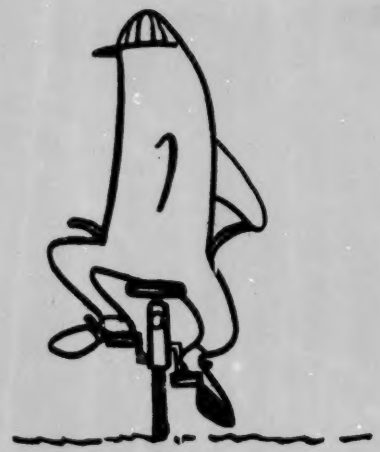
PERFORMANCE OBJECTIVE: The student will be able to identify vehicle signals and use correct operator signals.

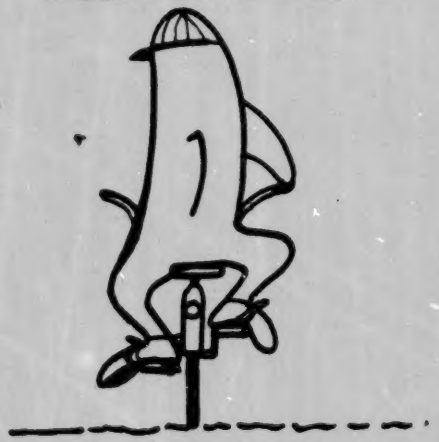
INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 10 & 13	2.1 Instructor/student demonstrates the left, right and stop hand signals.	2.1 Student illustrates the left, right or stop hand signals. Individualized Learning Guide No. 14
	2.2 Instructor allows each student to demonstrate hand signals.	2.2 Student demonstrates hand signals while riding bicycle.
	2.3 Instructor explains operator signals and vehicle signals.	2.3 Student compares operator signals and vehicle signals. Transparency Original No. 15
Student Material Individualized Learning Guide No. 14 Transparency Original No. 15		
Reinforcement Activity Dick Dolphin can be made out of tag board to demonstrate arm signals. Set up classroom and use arm signals at intersections. Appendix C		

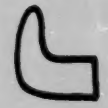
NEW WORDS: intersection

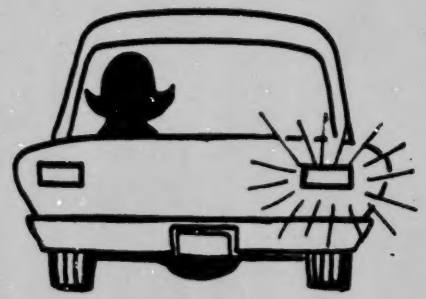
Cut out the ARMS of Dick Dolphin. Attach at the circle with a fastener, so the arms move.

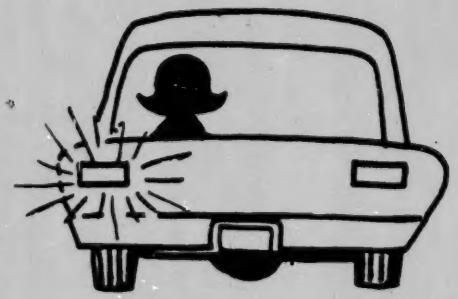


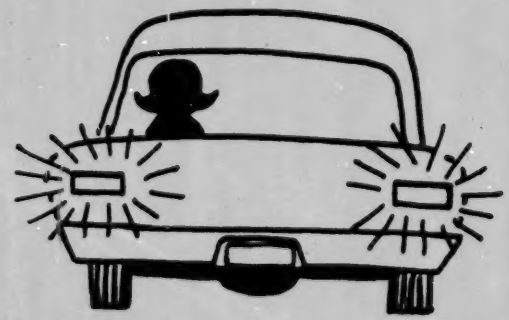












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MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

UNIT C. . .DECISION MAKING PROCESS

Grade Level: One

Applied Instruction: Social Studies
Physical Education

CONCEPT: 3.0 Left and Right Turns

PERFORMANCE OBJECTIVE: The student will learn the correct left and right turn.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Film: "I'm No Fool With A Bicycle" No. 7823 State Audiovisual Film Library Information Sheet, page 13 & 14	3.1 Instructor/student discuss and select an example of a correct left and right turn.	3.1 Student understands correct left and right turn. Individualized Learning Guide No. 16
	3.2 Instructor has student choose correct procedure for turns.	3.2 Student chooses correct procedure for turns. Individualized Learning Guide No. 16
	3.3 Instructor assesses student's ability to illustrate a correct left and right turn.	3.3 Student illustrates correct turns. Individualized Learning Guide No. 16
Student Material Individualized Learning Guide No. 16		
Reinforcement Activity Moving through the school building students can use signals in the halls.		

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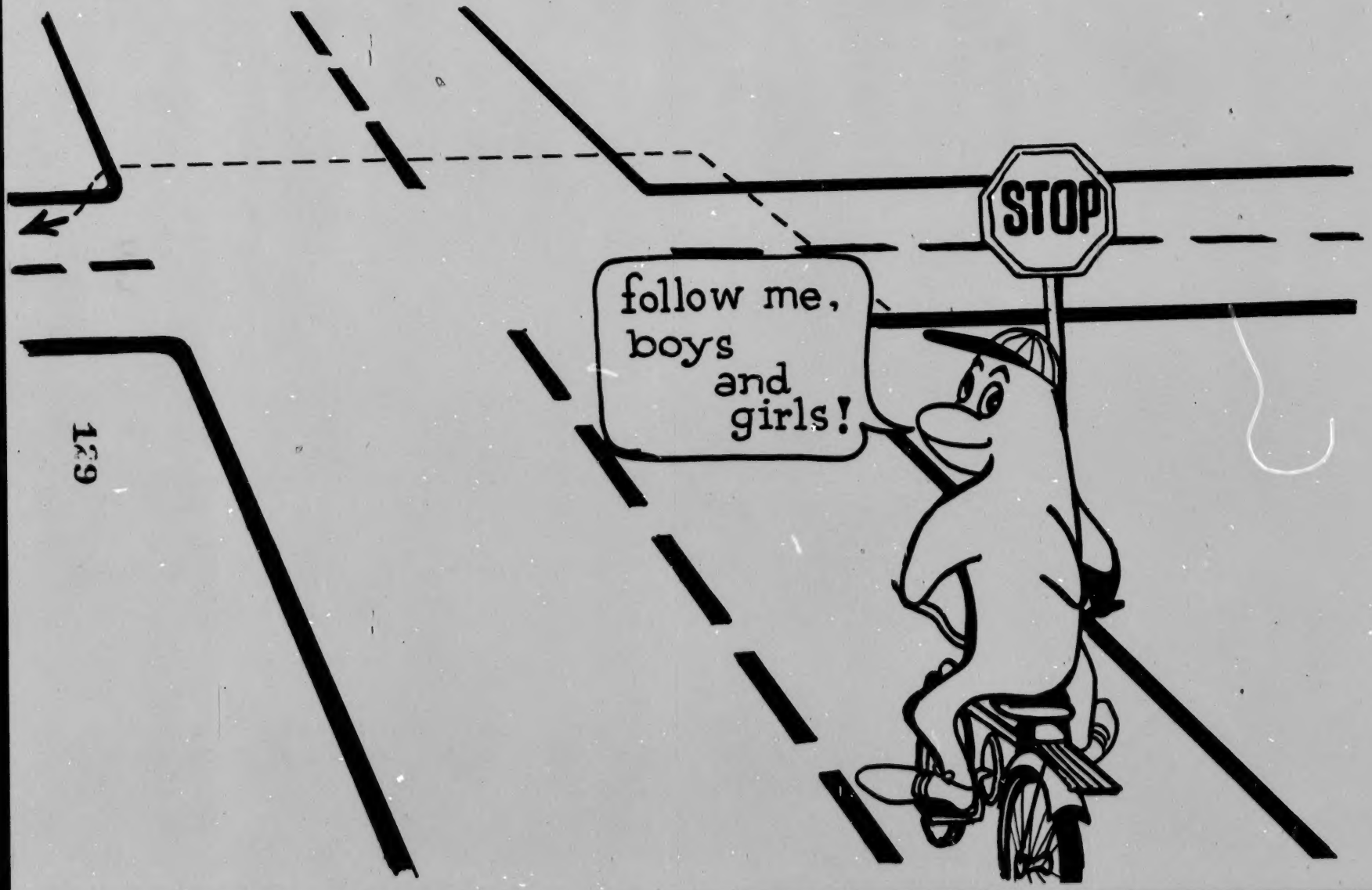

STOP
follow me, boys and girls!
129

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: One

Applied Instruction: Health
Science

UNIT C. . .DECISION MAKING PROCESS

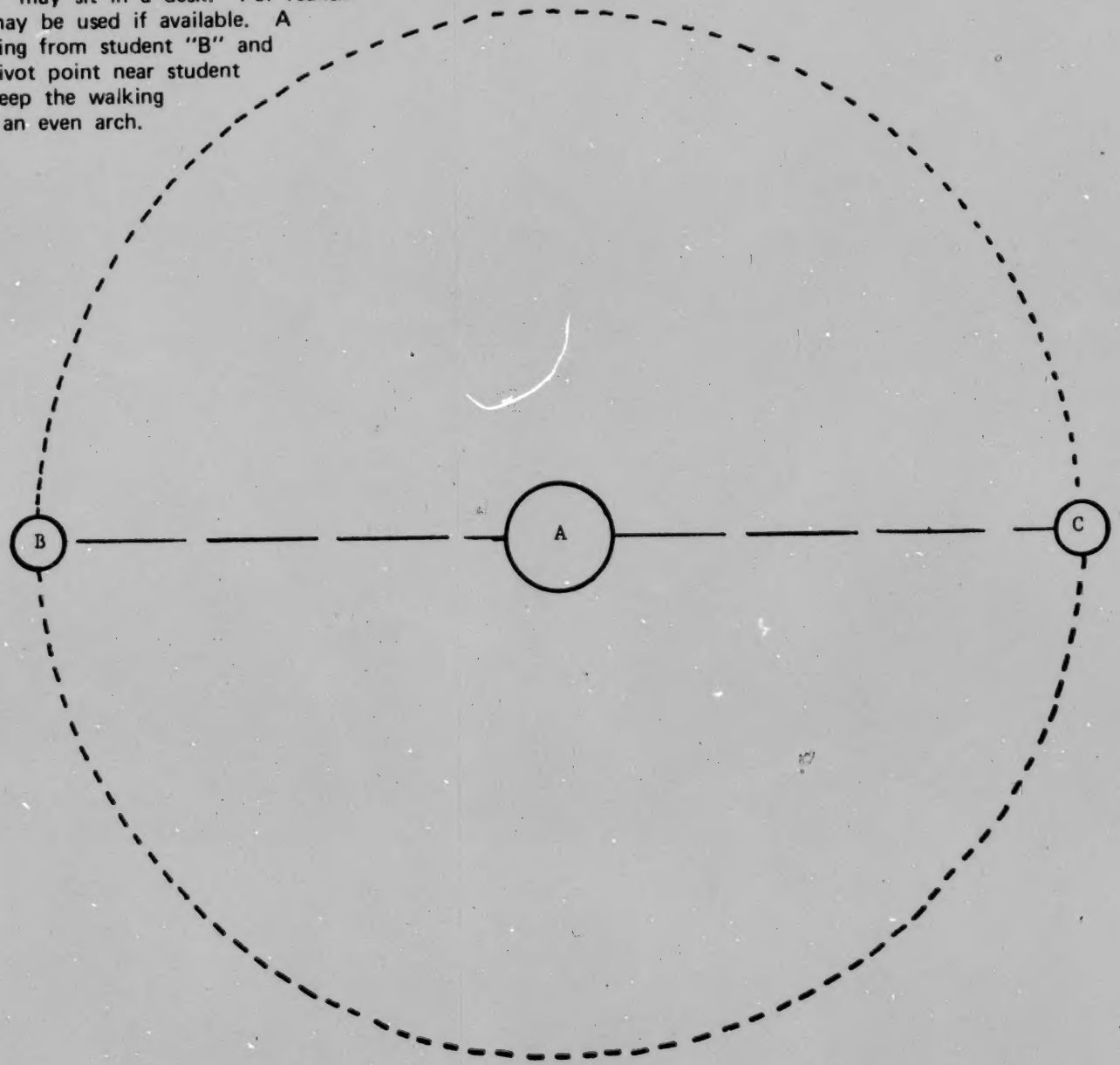
CONCEPT: 4.0 Visual Limitations

PERFORMANCE OBJECTIVE: The student will identify blind spots of a bicycle operator.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material 130 **Student Material** **Reinforcement Activity** Demonstrate limitations, page 47 Students bring sunglasses to show how rims and dark glass reduce sight.	4.1 Instructor positions a student in the center of the room. Two other students walk in an arch around center student until he can no longer see them while facing straight ahead.	4.1 Student determines visual limitations of bicycle.

NEW WORDS: visual, limitation, arch, blind spot

Student "A" may sit in a desk. For realism a toy car may be used if available. A piece of string from student "B" and "C" to a pivot point near student "A", will keep the walking students in an even arch.



MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: One

Applied Instruction: Health Science

UNIT C. . .DECISION MAKING PROCESS

CONCEPT: 5.0 Weather Condition Hazards

PERFORMANCE OBJECTIVE: The student will identify the effects of weather conditions.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: Discuss friction and demonatrate friction by rubbing finger over desk top to create heat. **Student Material** Individualized Learning Guide No. 17 **Reinforcement Activity** Listen to radio weather forecast to determine future weather conditions.	5.1 Instructor discusses the effect of weather conditions on the operation of a bicycle. a. Ice b. Rain c. Mud d. Snow e. Fog f. Sleet **Trigger Questions** a. Which has the greatest effect in operating a bicycle? b. How does mud make operating a bicycle difficult? c. Which weather conditions will make a road slick? d. Is it easy to ride a bicycle in snow? Why? e. Is it safe to ride a bicycle through a fog, on a busy street? Why? f. If your bicycle more likely to get stuck in mud or snow? Why? g. Why might your bicycle skid on a wet road? h. Have you ever seen sleet? What happens to the road during a sleet storm?	5.1 Student identifies weather conditions that affect bicycle operation. Individualized Learning Guide No. 17

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NEW WORDS: ice, rain, mud, snow, fog, sleet, weather, skid

133

DIRECTIONS: LABEL EACH OF THE CONDITIONS AND COLOR THE PICTURES.

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: One

Applied Instruction: Health Science

UNIT C. . .DECISION MAKING PROCESS

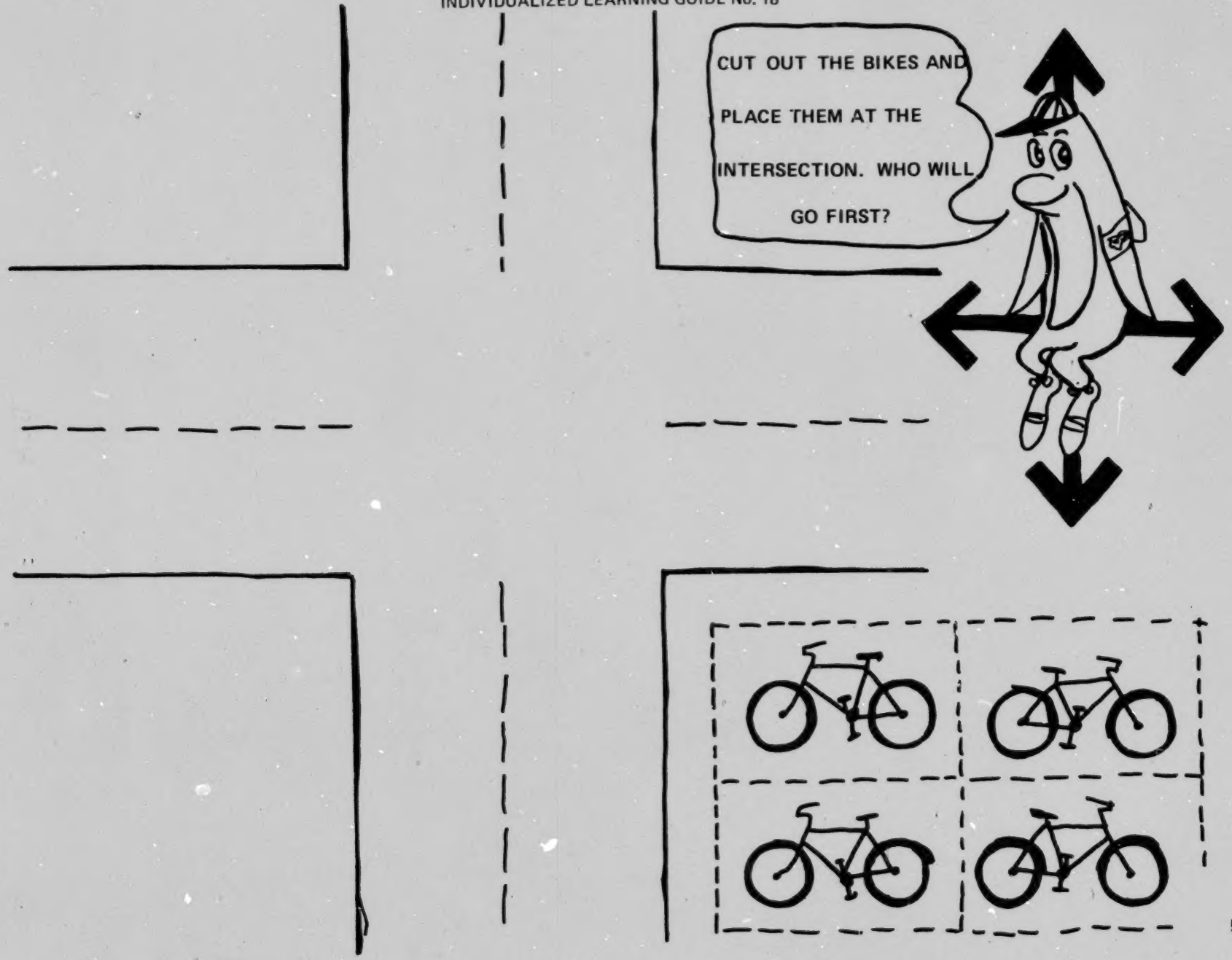
CONCEPT: 6.0 Hazard Recognition

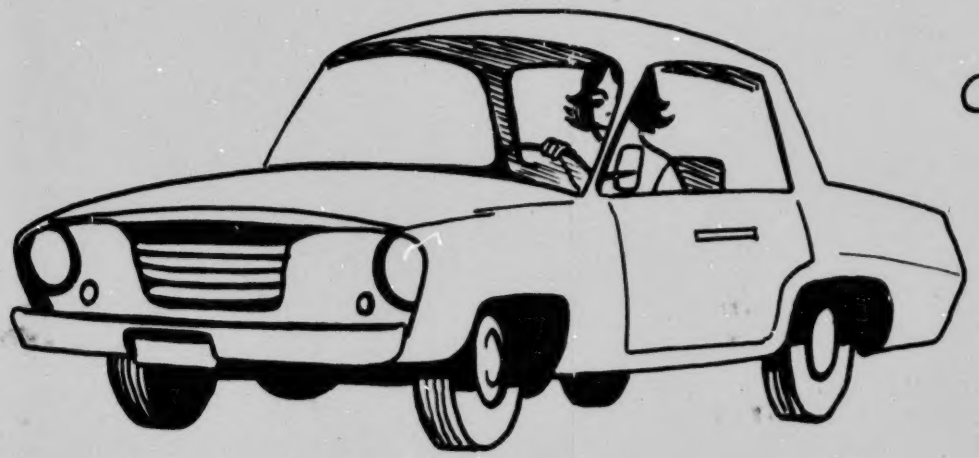
PERFORMANCE OBJECTIVE: The student will become aware that a bicycle is difficult for a motorist to see.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: The north, south, east, and west directions are primarily for your use. The exceptional student may be able to determine or already know directions. **Student Material** Individualized Learning Guide No. 18 Transparency Original No. 19 **Reinforcement Activity** Student learns to read a clock by determining when it gets dark.	6.1 Instructor helps the student to create street situations depicting a hazard for the bicyclist. 6.2 Instructor/student compare the size of a bicycle with the size of other vehicles.	6.1 Student arranges cutouts of vehicles on intersection to visualize a hazard. Individualized Learning Guide No. 18 Student compares bicycle and vehicle size. Transparency Original No. 19

134

NEW WORD: hazard


CUT OUT THE BIKES AND PLACE THEM AT THE INTERSECTION. WHO WILL GO FIRST?



COMPARE SIZE..

136

A SAFER DRIVER YOU WILL BE,

IF YOU LEARN TO LOOK AND SEE,

DANGERS YOU MISS BY NOT TURNING YOUR HEAD–

WAITING TO PUT YOU IN A HOSPITAL BED ! !

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: One

Applied Instruction: Art
Social Studies

UNIT C. . . DECISION MAKING PROCESS

CONCEPT: 7.0 Rural Hazards

PERFORMANCE OBJECTIVE: The student will recognize hazards of rural roads.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material poster board construction paper paste pins tape Note: Design of poster appendix B **Student Material** Individualized Learning Guide No. 20	7.1 Instructor guides the student in designing a poster, showing hazards on rural roads. a. slow moving vehicles b. livestock (dogs-cattle) c. blind intersections d. narrow bridges e. loose gravel f. ruts and chuck holes 7.2 Instructor guides discussion. **Trigger Questions** What would you do if you came upon: a. slow moving vehicles? b. livestock (dogs-cattle)? c. blind intersections? d. narrow bridges? e. loose gravel? f. ruts and chuck holes?	7.1 Student demonstrates the hazards of rural roads on a poster with moveable objects. 7.2 Student identifies, predicts, decides and executes the correct response to the given situations. Individualized Learning Guide No. 20

NEW WORDS: rural, identify, decide, execute, response, situation, rut, chuck hole, gravel, livestock, narrow, right-of-way

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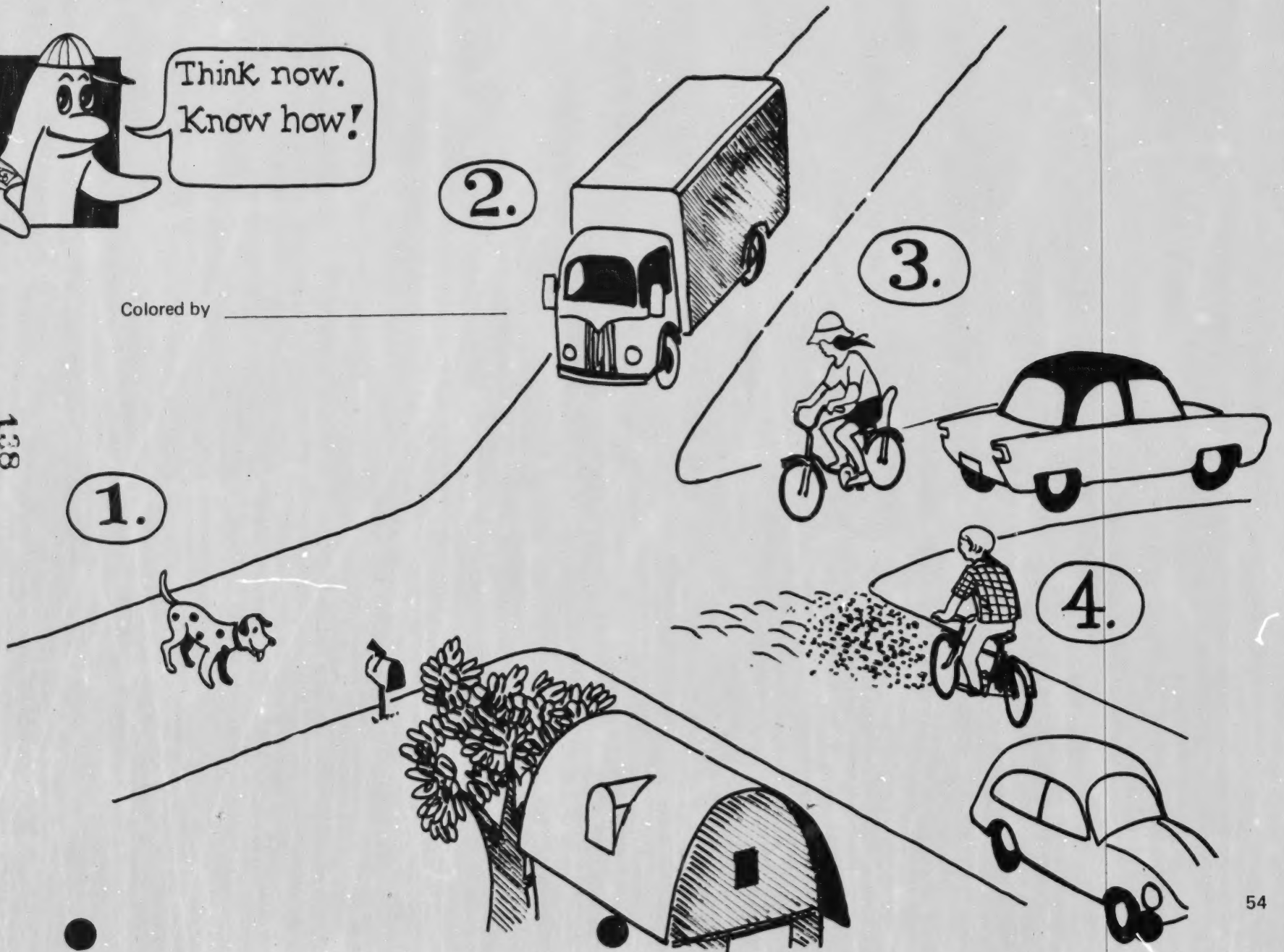

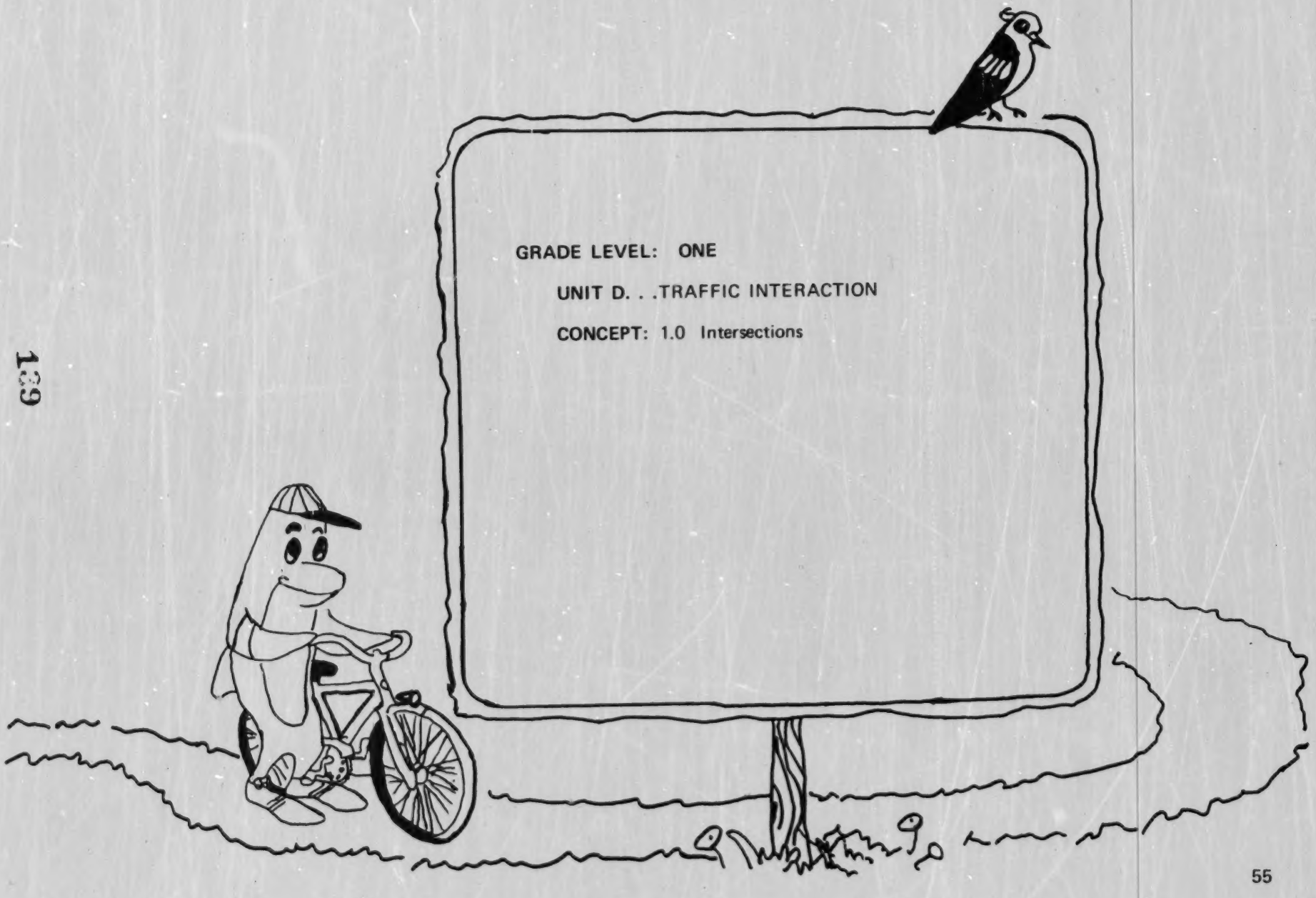
GRADE LEVEL: ONE
UNIT D. . .TRAFFIC INTERACTION
CONCEPT: 1.0 Intersections

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: One

Applied Instruction: Social Studies

UNIT D. . .TRAFFIC INTERACTION

CONCEPT: 1.0 Intersections

PERFORMANCE OBJECTIVE: The student will recognize right of way procedure at controlled and uncontrolled intersections.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet: Controlled and uncontrolled intersection procedure, page 14 & 15 Film: "Day The Bicycles Disappeared" No. 6616 Montana Audiovisual Film Library	1.1 Instructor identifies and discusses controlled intersection procedure. 1.2 Instructor identifies and discusses uncontrolled intersection procedure.	1.1 Student learns to identify and proceed at a controlled intersection. Individualized Learning Guide No. 21 1.2 Student learns to identify and proceed at an uncontrolled intersection. Individualized Learning Guide No. 22
Student Material Individualized Learning Guide No. 21 & 22		
Reinforcement Activity Local intersections can be viewed on a field trip. Appendix A		

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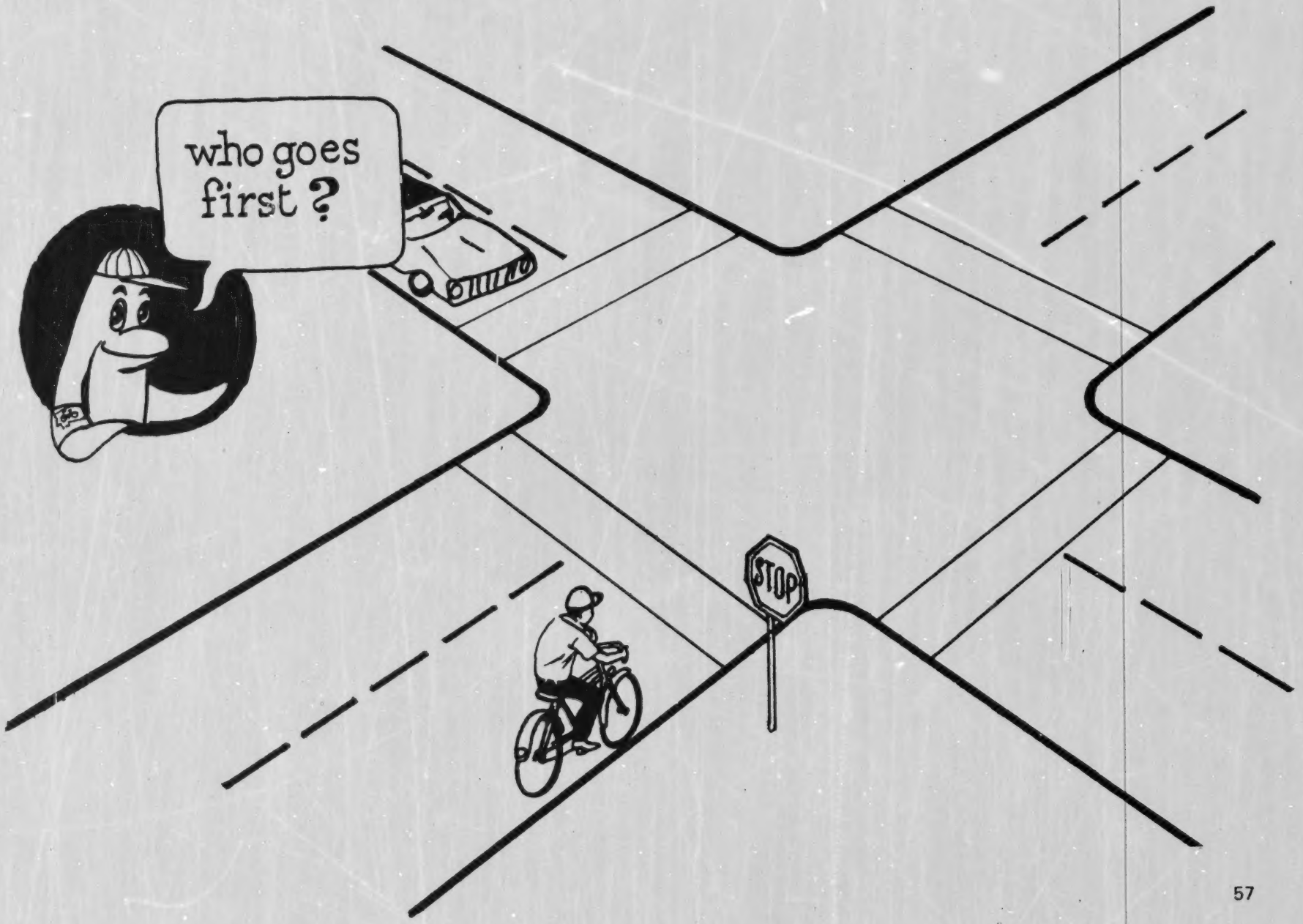
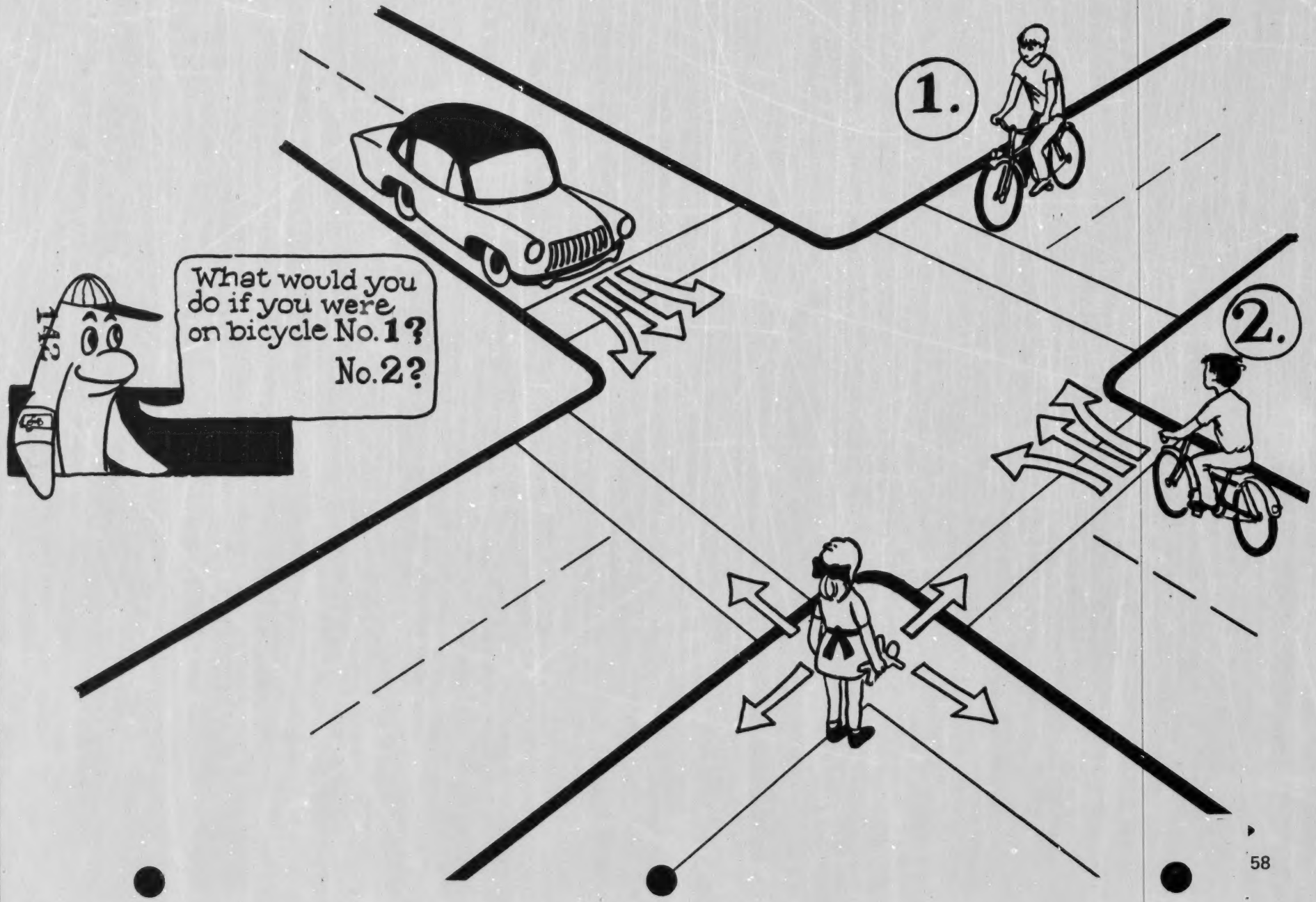
NEW WORDS: crossroad, vehicle, crosswalk, marked, unmarked


who goes first ?
STOP


1.
2.
What would you do if you were on bicycle No. 1?
No. 2?
143

GRADE LEVEL: ONE
UNIT E. . .CAREER AWARENESS
CONCEPT: 1.0 Safety Workers

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: One

Applied Instruction: Art
Social Studies

UNIT E. . .CAREER AWARENESS

CONCEPT: 1.0 Safety Workers

PERFORMANCE OBJECTIVE: The student will be aware of careers related to bicycling.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: The student should consider himself as the most important safety worker. 144 **Student Material** Individualized Learning Guide No. 23	1.1 Instructor/student discuss jobs related to a bicycle. Safety Workers: a. sales persons b. bike repair c. Dick Dolphin d. policeman e. YOU f. parents	1.1 Student identifies jobs, which are visable in the community, related to bicycling. Individualized Learning Guide No. 23

NEW WORDS: job, worker, safety

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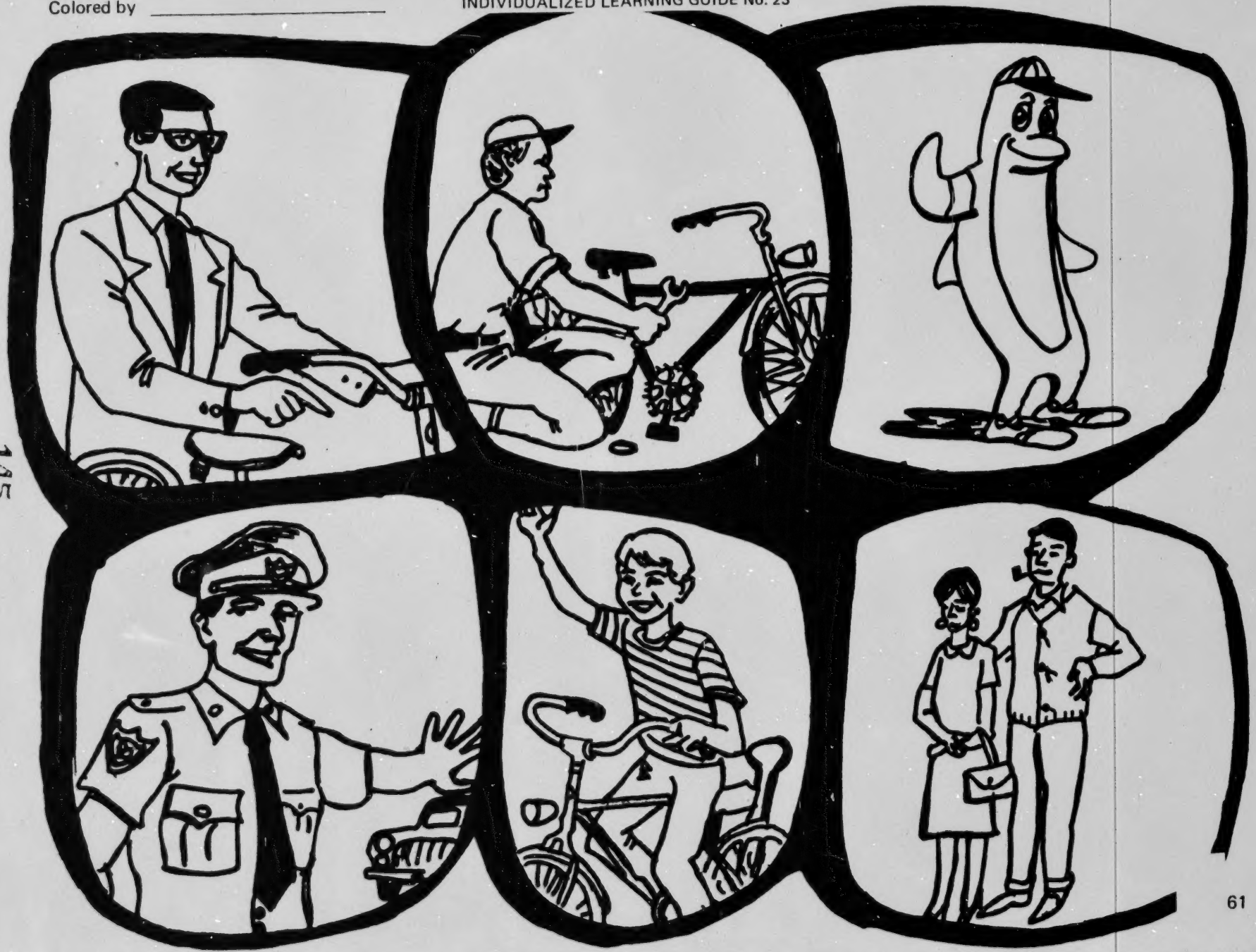
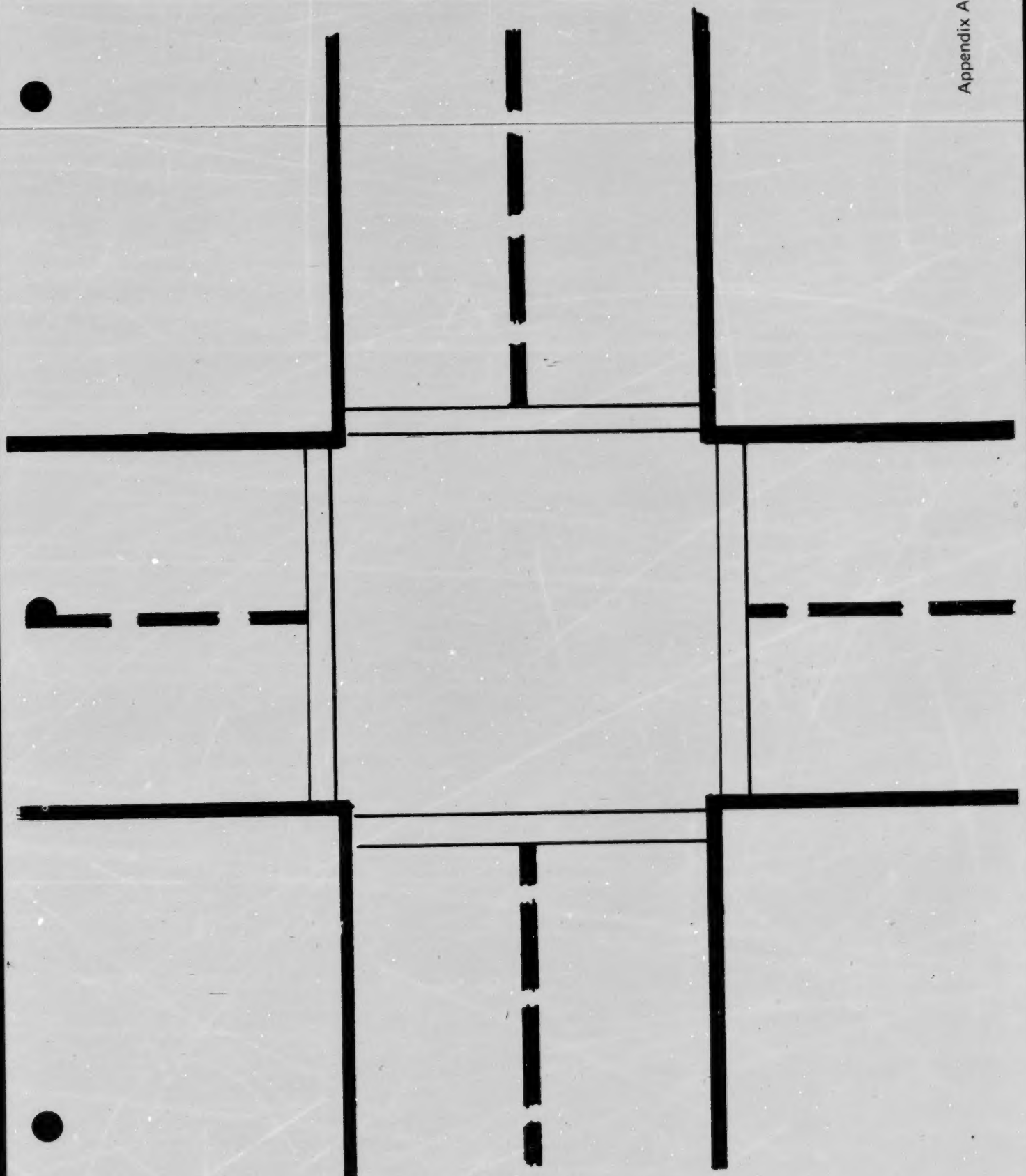
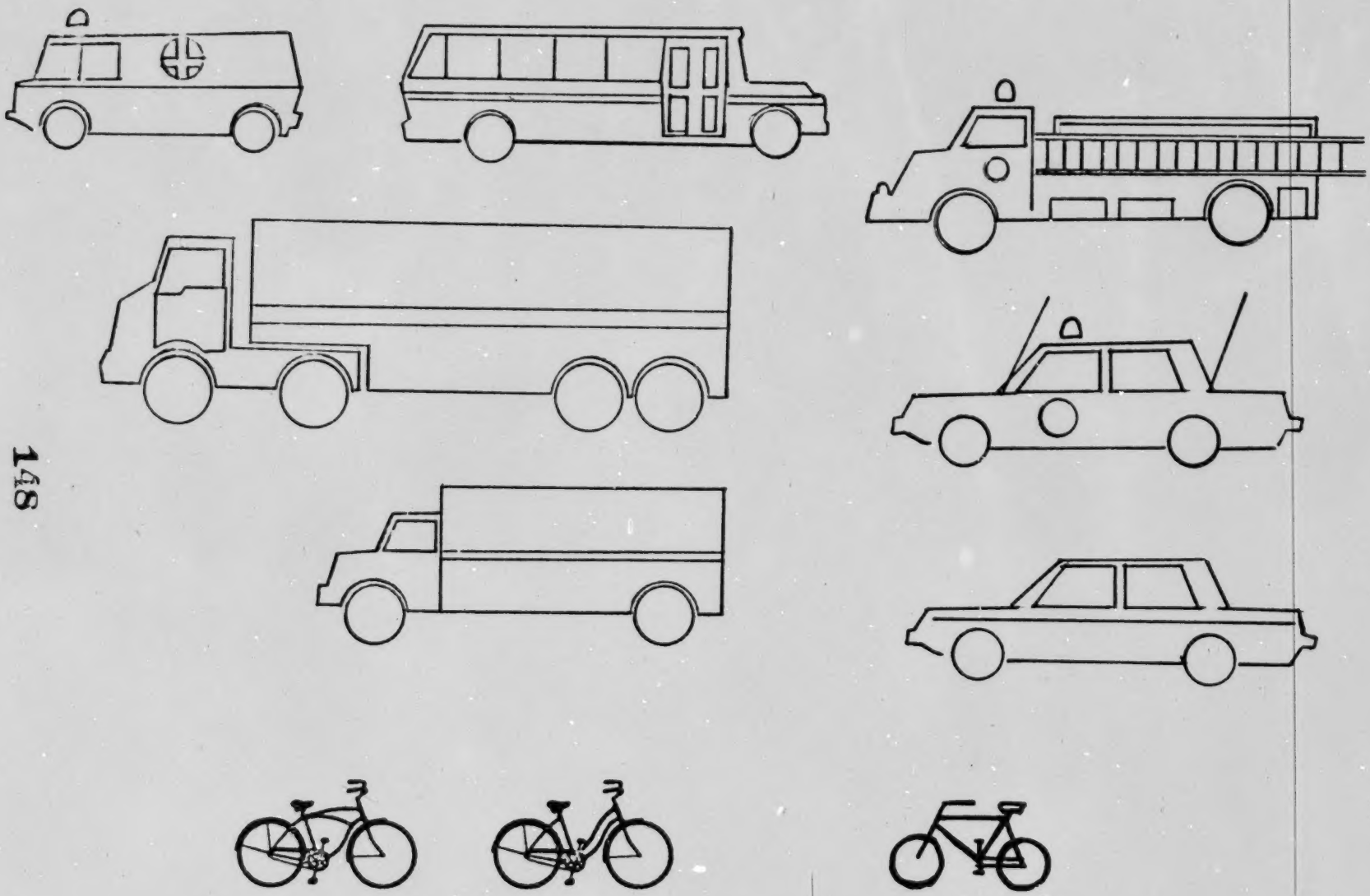
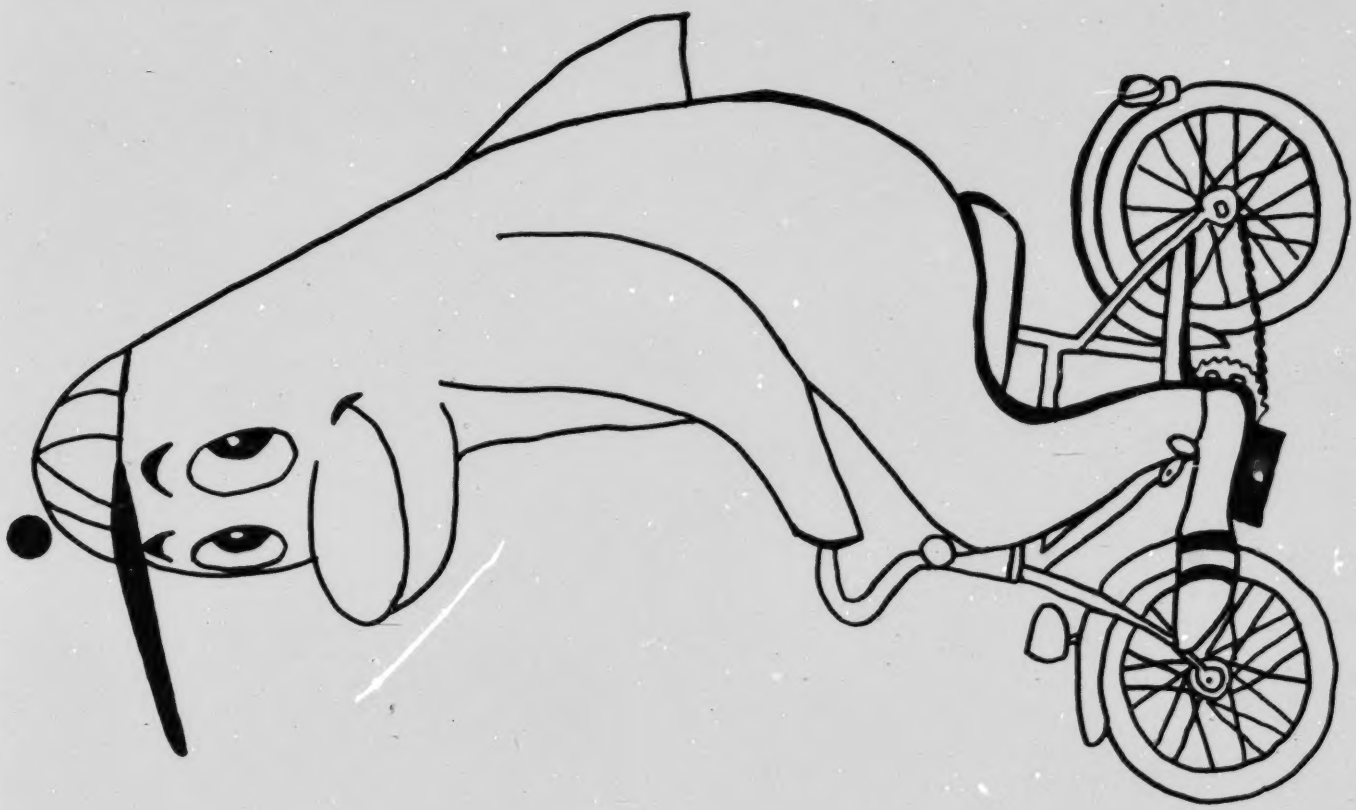


APPENDICES

TRAFFIC INTERSECTION	A
VEHICLES TO SCALE	B
DICK DOLPHIN FIGURES	C–D
BICYCLIST ARM PATCH	E
TRAFFIC CONTROLS	F–L
SAMPLE ACTIVITIES	M
ROUTE GAME	N
BIKE FESTIVAL	O–S







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STOP

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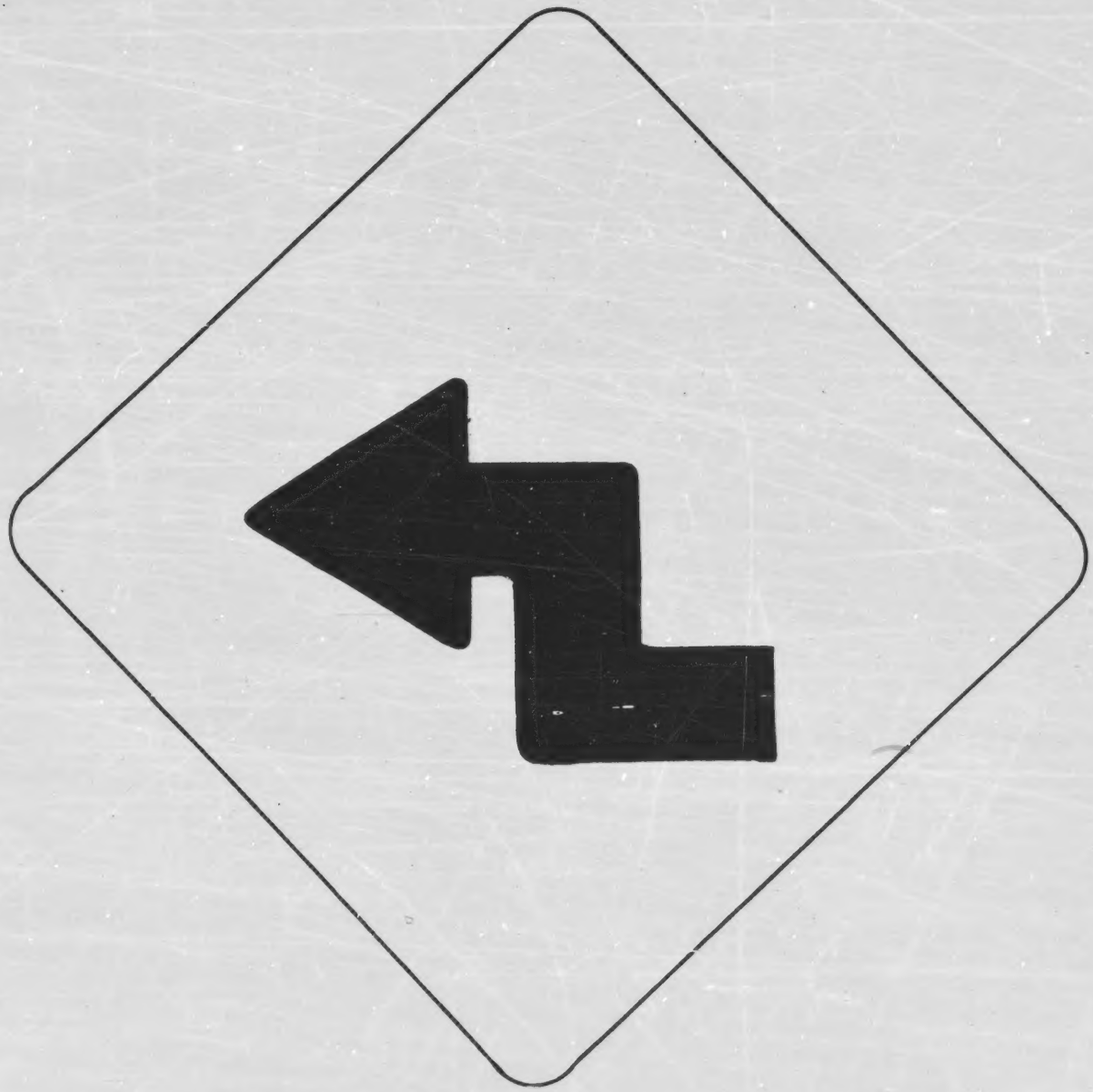

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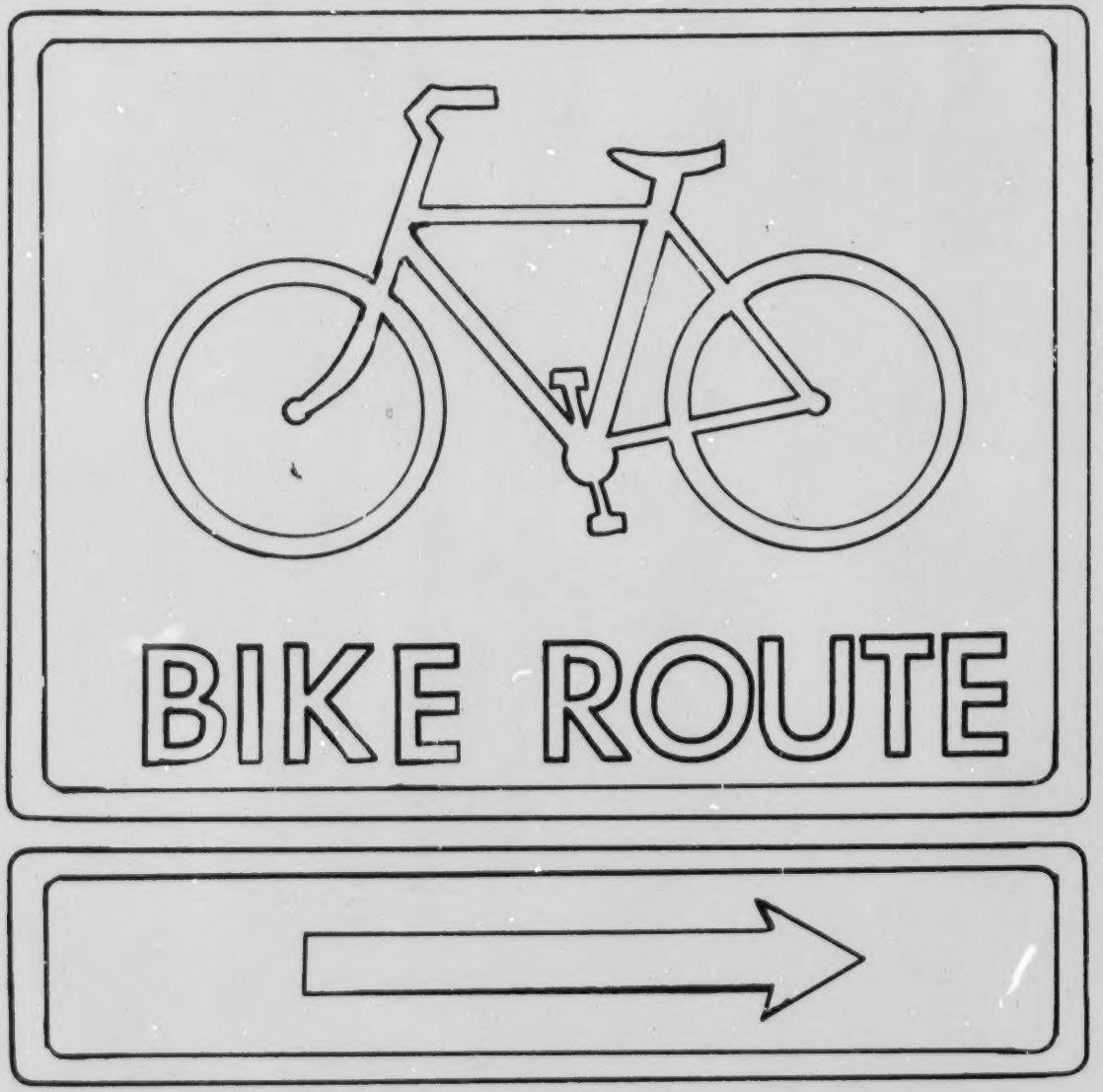
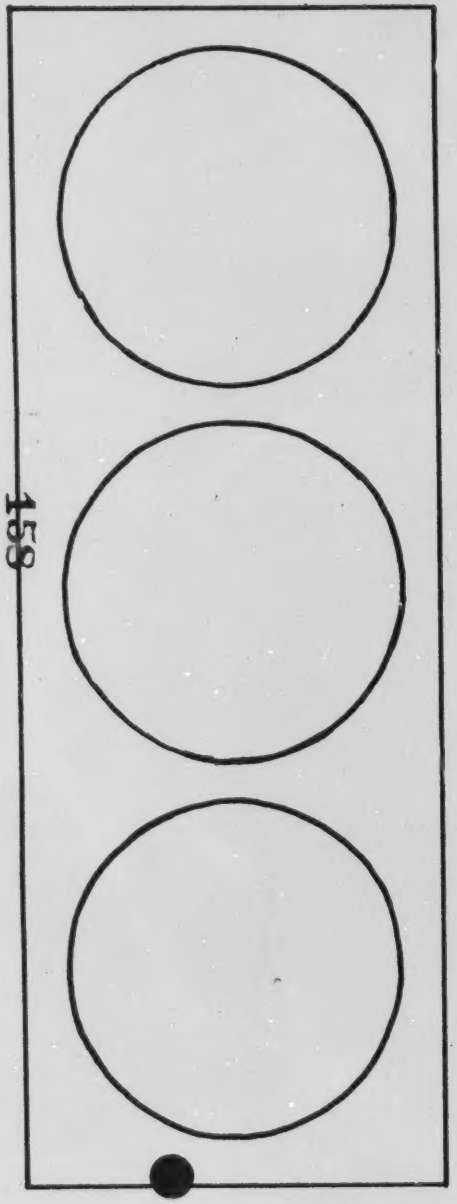


Sign coloring – WHITE: bicycle interior, border line, arrow, letters **BIKE ROUTE**
GREEN: background of bicycle, background or arrow

REINFORCEMENT ACTIVITY

MODEL TRAFFIC LIGHT



Cut three large holes in the side of a half-gallon milk carton. Cover the top hole with *red* cellophane or tissue. Cover the middle hole with *yellow*, and the bottom hole with *green*. Cut a hole in the opposite side of the carton so the cellophane circles can be illuminated from behind with a flashlight. Insert a cardboard mailing tube in the base for a stand. Children can take turns operating the traffic light with a flashlight.

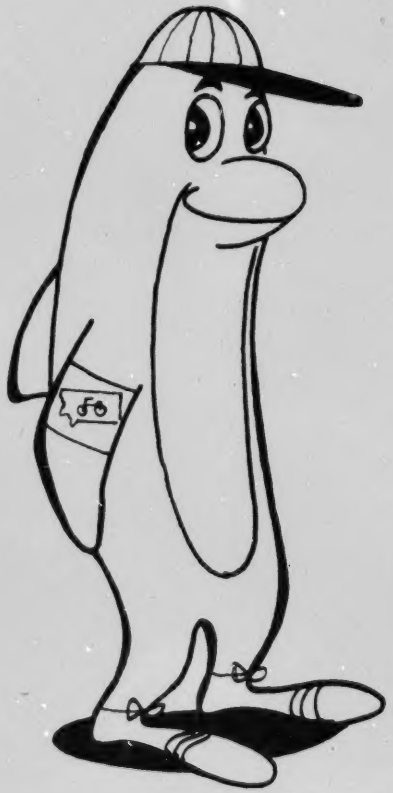
DICK DOLPHIN:

HE IS VERY BRIGHT.

WHEN THE LIGHT TURNS RED -
STOP! HE USES HIS HEAD.

WHEN THE LIGHT TURNS YELLOW -
WAIT! BE A CAREFUL FELLOW.

GREEN LIGHT - LOOK LEFT AND RIGHT
AND BE SURE IT'S CLEAR,
BEFORE YOU CAN CROSS WITHOUT ANY
FEAR.



Ten Little Bikes
(tune: *Ten Little Indians*)
10 little bikes all in a line;
1 fell over—then there were 9.
9 little bikes all in a line;
1 was stolen—then there were 8.
8 little bikes all in a line;
1 got hit—then there were 7.
7 little bikes all in a line;
1 lost a wheel—then there were 6.
6 little bikes all in a line;
1 hit a tree—then there were 5.
5 little bikes all in a line;
1 went through a stop sign—then there were 4.
4 little bikes all in a line;
1 rode double—then there were 3.
3 little bikes all in a line;
1 didn't signal—then there were 2.
2 little bikes all in a line;
I hooked a ride—then there was 1.
1 little bike all well;
Following the safety rules—he'll stay that way.

Poem
When riding a bike,
Look out for those who hike.
Make sure you use your noggin.
Don't be dobbin
Keep moving along, and obey
all bicycle rules,
For you wouldn't want the doctor to
use his tools.
Don't fall down and bump your nose,
Just because you were pedaling
barefoot with your toes.
Always be careful.
Don't be dareful.
Don't ride double with your friend,
Or it may very well be your end.

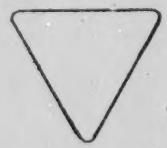
Crossing a busy street
Is not a treat.
You have to look left and right
Until there's not a car in sight.

Know your bicycle rules,
Don't be fools.
Remember them all
And you won't have to make
a doctor's call.

Poem
When Dick Dolphin rides his bright red bike,
He watches for the traffic light.
He stops with red, and goes with green,
For the rushing cars are very mean.
The cars are big; Dick's bike is small.
Dick knows the safety rules—one and all.
Dick wishes you would know them too;
And use them on your way to school.
But not just on your way to school;
ALWAYS use Dick's safety rules.

by *Kara*

Read Aloud Safety Story
One day, Dick Dolphin and his friends went for a ride on their bikes. They looked at the signs by the road. They saw a white sign with a red band like this one.



"What shall we do?" asked Jack. "We must slow down," said Dick. "Then we will look around carefully. If there isn't any car coming we will go on." "Why do we have to slow down?" asked Tom. "So that we will be safe bike riders," said Dick. "The people on that other road have the right-of-way." "What does that mean?" asked Jack. "It means that they do not have to stop for us." said Tom. "Isn't that right, Dick?" "Yes," said Dick. "Now here is another sign. What does it say?"

"I know that one," said Jack. "That means stop." "Why is it red?" asked Tim. "I know." said Bob. "Red means danger. The red sign with the white letters is easy to see, too." "You are right." said Dick Dolphin. "It is time to go home. We will find more safety signs when we go riding tomarrow. Always remember, *Safety First*!"

Fair–Mont–Egan School

WHICH IS THE SAFE PATH ?

START AT THE BOTTOM OF THE PAGE, CHOOSE YOUR PATH CAREFULLY.

'FESTIVAL OF BIKES'

School–Community Activity

A group activity, in which all students participate and the parents are involved, reinforces a student, instructor and community effort. The following is a sample of such an activity to assist you in planning. For each community the conditions, equipment and need will vary and the school should plan according to these considerations.

Leadership
Leadership is the key to success. Community involvement, a strong point in this activity, requires firm but not dictatorial leadership. Planning by the leader will assure the essential consideration of safety for the participants and observers.

Objective
1. Create attitudes which will allow students safe and enjoyable bicycle operation experience.
2. Provide an activity which creates parental awareness of bicycling and what is being taught in the school.
3. Create, by parent and community, awareness of bicycle safety.
4. Provide experiences for problem solving in simulated situations.
5. Prepare skill competencies in bicycle operation in the traffic environment such as balance, control and emergency movement.

Planning
Activities should be divided by age groups, for example, ages 6, 7, and 8 might participate as a group. A caution to the planner; avoid timed activities as opposed to skilled activities. An activity designed to improve skills of students, and being non competative, encourages young people participating to learn and not to show off.

Parents and news media should be informed well in advance of the activities. Perhaps transportaiton on a school bus could be provided. This will also help parents to understand school problems in transportation.

Most students and parents are willing participants in well planned activity spanning about 2½ to 3 hours. A program should be printed and include objectives and appropriate acknowledgements.

Planners should involve community agencies such as law enforcement, service clubs, high school students, bicycle groups, bicycle dealers, senior citizens, et al.

Sample Program:
1:00 P.M. . . . Film Showing
1:30 P.M.M. . . . Bike Inspection
2:15 P.M. . . . Bike Skills Activities
3:00 P.M. . . . Awards
3:15 P.M. . . . Bike Parade

Film – Appropriate film for parents and students chosen by age level. Previewing the film is essential. Suggested films: "Just Like A Car" or "Tripping On Two." Montana Audiovisual Library, Office of the Superintendent of Public Instruction, Helena, MT 59601.

Inspection – An inspection form, a sample of which appears on the following pages, can be obtained from the Montana Highway Patrol Bureau, Helena, MT 59601.

Activities – An outline of activities appears on appendix R. Scoring of the skills must conform to your program objectives. A suggestion is that each of the five parts have a value of 20 points. Points are deducted for errors. Use any or all activities adopting each activity to age group and area.

Awards – Every participant should leave the activity with some recognition that they have participated. Additional prizes or awards for skills could include safety items for bikes such as bike flags, reflectors, bike horn or a T-shirt (see page 7). In some communities service organizations or businesses will contribute such items. A sample award is provided on the last page.

Parade – The first consideration of parade organization is safety. Plan the route and determine how dispersion of participants will take place, keeping in mind community traffic patterns.

Helpful Aids – General outlines of skill activities and helps to a leader planning a group skill activity:

American Automobile Association
1712 G. Street, N.W.
Washington, D.C. 20006
Request single copies of activity material.

Bike Reflector Kits, products and price list available on request
Safety Factors, Inc.
6746 West North Avenue
Chicago, IL 60635

Bike safety items, price list available on request:
American Industries, Inc.
Sarasota, FL 33580

Activities and information of general use, "Expert Bike Driver":
Channing L. Bete Co., Inc.
45 Federal Street
Greenfield, MA 01301
Student booklet price 25 cents each.

Cones, bike triangles, line markers, etc.:
Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, MO 63701
Request catalog.

Reflective tape emblems with Dick Dolphin, request prices and information:
Traffic Control Products, 3M Company
James A. Delaney
109 Riverview 1 West
Great Falls, MT 59401
Request additional information on Bike Safety Kits.

(SAMPLE)

SCORE SHEET

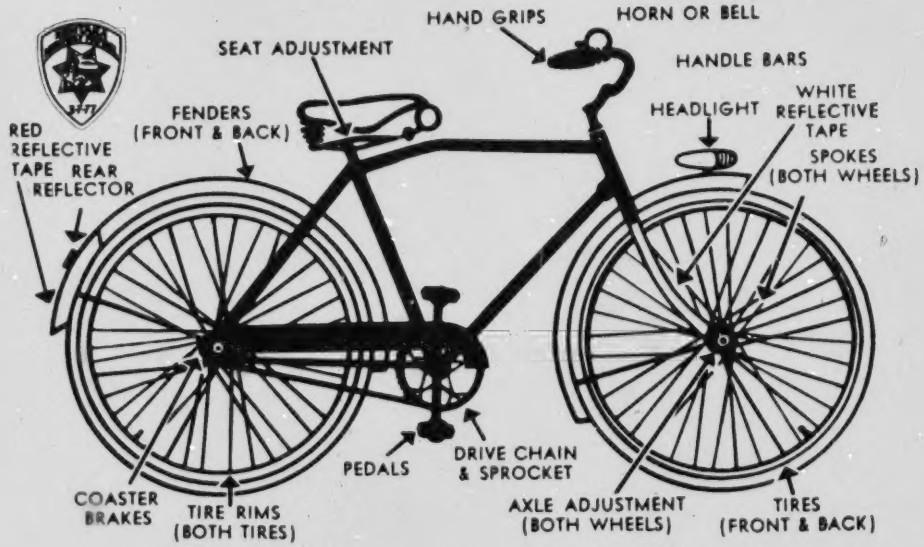
Name _____

ACTIVITY	SCORE	IMPROVEMENT IN
1. Figure Eight		
2. Straight Line		
3. Weaving		
4. Intersection		
5. Evasive		
6. Stopping		
Total		

Score Keeper _____

(SAMPLE)

INSPECTION FORM



Available from:
Montana Highway Patrol Bureau
Helena, MT 59601

BICYCLE SAFETY INSPECTION: The club instructor is to inspect each bike or he may accept a card signed by an authorized bicycle dealer as proof of safe condition.

Name of Bicycle Owner.....

Inspection Made by.....

	Pass	Adjusted	Repairs Needed
HANDLE BARS—Right height, tight. Handlegrips must be tight.			
BRAKES MUST HOLD.			
SADDLE—Should be adjusted so that leg forms straight line when rider sits with heel on pedal at lowest point.			
PEDALS—Should have good treads, lubricated to turn freely.			
WHEELS—Wobble indicates need of wheel cone adjustment or replacement of broken spokes.			
REFLECTOR—Required as essential safety item.			

HEADLIGHT: The club does not insist on a headlight, but the child must understand that it is required by law if riding after dark.

PARENTS: For safe, easy riding keep bikes in good repair. Your authorized bicycle dealer will make this inspection.

(SAMPLE)

Bicycle Skill Activities

Area: Boundries may be determined by using cones, block or lines. The perimeter of the area should be free of hazards and boundry items safe if hit by the participants. Area available and ability of participants will dictate distances.

1. *Figure Eight* – Purpose: balance and change of direction. When operating a bicycle there are frequent instances when the operator must swerve to avoid a pedestrian, a pothole, or an oncoming vehicle.

2. *Straight Line* – Purpose: start and stop without weaving. With a bicycle of proper size a participant can start and stop without weaving. The proper bike pedal position should be checked.

3. *Weaving* -- Purpose: change of direction and maneuver. A bike operator becomes aware that he should not look at an obstacle because he steers in the direction he is looking.

4. *Intersection* – Purpose: hand signal check. Correct hand signals used without losing control of the bicycle.

5. *Evasive* – Purpose: evasive maneuver and change of direction in a confined area. A car door opening in the path of a bike operator requires swerving around the obstacle and avoiding oncoming traffic in a confined area.

6. *Stopping* – Purpose: stopping ability and stopping distance. Operators of bicycles are often unaware of stopping distance. Balance is important in stopping.

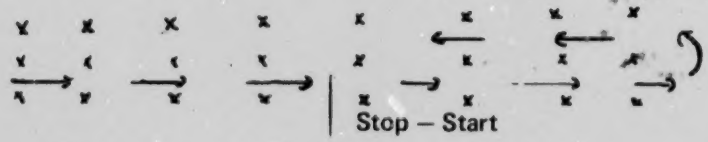
(SAMPLE)

Course Outline

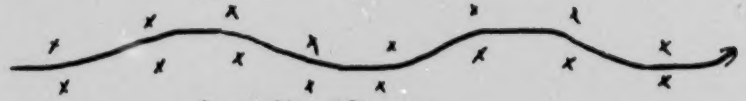
'x' indicates cones or markings which show the course. Adjust distance to the area and group. Mark lanes 4 feet wide.

1.

2.

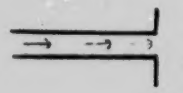


3.



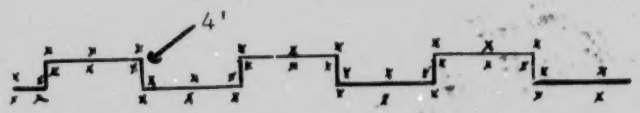
Cones 8' to 10' apart

4.

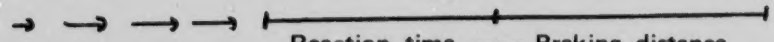


← Person to tell participant to turn left, right, stop or slow.

5.



6.



Reaction time —— Braking distance
(Total stopping distance)

SAMPLE
AWARD

BICYCLE SAFETY AWARD

TO _____

For participating in **BICYCLE SAFETY INSTRUCTION.**

Dated _____

_____ _____

School Superintendent or Principal *Instructor*

2

Traffic Education for Montana Elementary Schools

166

DOLORES COLBURG, SUPERINTENDENT OF PUBLIC INSTRUCTION, HELENA, MONTANA 59601

Financed through a grant under the Highway Safety Act of 1966, P.L. 89-564

STATE PUBLISHING CO.-LITHO

PREFACE

This curriculum guide has been developed to assist teachers in an instructional program for elementary school youngsters in traffic education. The guide provides instructional aids and resource materials that are designed to fit smoothly into many areas of existing elementary curricula.

The basic materials in this guide were developed by participants in a July, 1973 workshop sponsored by my office and supported with a grant under the Highway Safety Act of 1966. The participants, who functioned as a task force team, are

Larry Becker
Barbara Bowlen
Don Burman
Marge Carlson
Joel Cobetto
Robert Eva
Gary Ford
Earl Furlong
Dorothea Grow
James Gunlikson
Lowell Hayes
Patricia Heydon
David Jones
Margaret Kavulla
Robert LeMieux
Thomas Loggins
Dan Magstadt
Lynn Mavencamp
Dan McKenty
Mildred McMillion
Harold G. Mogen
Raine Montysals
Roland Newton
Boyd O'Connell
Ed Reichert
Michael Rosbarsky
Minnie Skinner
David Stabio
Jack Sutton
Tally Taylor
William Taylor
R. Keith Thomas
Andrew Veis
Richard West
Jack Witham

Curtis R. Hahn, Traffic Education Supervisor, and Georgia D. Rice, Assistant Traffic Education Supervisor in my office, directed the entire effort in producing this guide. Consultative assistance, particularly for the July, 1973 workshop, was provided by Richard Boyer of Glenview, Illinois. Jerome Rankin did the artwork for the guide.

While this guide was pilot-tested in twelve elementary schools in the state prior to final publication and distribution, we would welcome responses from all who receive the guide as to its usefulness as an instructional and learning tool. Critical review of and comment on this guide can be of assistance to us in future efforts of this office.

DOLORES COLBURG
Superintendent of Public Instruction

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APPLIED INSTRUCTION AREA

To assist the instructor to integrate safety activities into instructional areas, subjects are listed and appropriate pages given below.

Subject Area	*Page Number of Related Traffic Safety Activities*
ART	25, 28
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LANGUAGE ARTS (Reading Readiness)	18, 22, 25, 28, 30, 32
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MUSIC	Appendix M
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INTRODUCTION

As most of you know, traffic accidents represent one of the greatest threats to human preservation. Individuals are involved in a highly complex traffic environment from birth and remain involved throughout their lifetime as a passenger, pedestrian, bicyclist and motor vehicle operator. Consequently we owe it to our students to provide them the opportunity to learn the knowledges, skills, and attitudes that will allow them to function successfully within the traffic environment.

The education of a student is brought about by effective management of the total learning environment. After perusing the enclosed curricular guidelines, we believe you will discover that management by objective can be successfully applied and because the program is "performance based," learner achievement is promoted.

If we accept human preservation as an appropriate educational goal to manage as a part of the total learning environment, we must help the student develop his dicision making ability. The decision making process should begin early in the development of the student. The performances required in this program are built around decision making and problem solving. To be more specific, the concepts of IDENTIFY, PREDICT, DECIDE and ACT must be encouraged and taught throughout the utilization of this material.

The student must learn to IDENTIFY the problem or situation; PREDICT what might happen; DECIDE what course of action he must take to successfully deal with the situation; and ACT effectively. The IPDA concept has application on a much broader basis than just the traffic environment.

Human preservation cannot be achieved without the help, commitment and involvement of the following:

PARENTS

Nobody quarrels with the axiom that education begins in the home. Utilizing the home as the nearest "grass roots" of a child's learning environment is essential. The more sterile and removed the environment of the classroom, the more doomed to failure learning becomes. Ways to gain the curiosity, healthy interest, and helpful assistance of the parents are integrated in this program. The imagination of the instructor is unlimited when involvement is used to further develop the methods or create new methods.

STUDENTS

This program is based on the principle that students are aware of what tasks are expected of them, that they know what they can expect of their teachers, and that through their efforts, they can achieve success. Students are the gatherers and discoverers of information, not the receivers. Students develop psychomotor skills through practice, not as trainees. Students must become involved in the total task.

SCHOOL

When instructors, the administration, and school board agree on established goals, the compartmentalized school solidifies into a total unit dedicated to teaching the total student. A student who becomes a statistic in accident reports is denied his birthright to an education. Accident reduction in the traffic environment is an easily agreed upon goal.

COMMUNITY

No matter how small or isolated the community, various service, social, religious, and fraternal organizations and agencies are dedicated to the same goal as education. Some of these organizations and agencies have a wealth of experience, materials, and maybe most importantly, time which can be utilized and channeled for the benefit of kids. The prepared, interested and effective teacher makes full use of the community.

STATE

The Office of the Superintendent of Public Instruction Traffic Education Program is especially receptive to your suggestions to improve, polish, and perfect the instructional content of this program. Any evaluation, innovation, successful methodology from you, the instructor, would be helpful. Other agencies are also committed to the education of youth. Some are mentioned in this program.

FEDERAL

The many projects initiated by the federal government, which focus on the youth, should be evidence of a commitment to be of assistance. Often, what seems to be apathy is ignorance of your needs.

LAW ENFORCEMENT AGENCIES

From the highway patrolman to the town marshal to the sheriff – all have a vital concern that a student will be educated with a respect for and understanding of the laws which govern a society. Probably from no other source will the instructor find more cooperative and helpful people. Too often these people have seen the results of ignorance and carelessness in a traffic environment. They have a personal and professional commitment to the same goals as the instructor and this program.

SUMMARY

Students would never learn a new concept if it were not a more advanced endeavor than his previous level of knowledge. The program is created on a "building block" concept and though some concepts are difficult at the grade level assigned, the instructor should be cognizant that the student beginning at K with the kindergarten material will be ready for grade one material. Also it is not a challenge to the learner to repeat a concept which he has already discovered. Challenge your student or you will have discipline problems, frustration, and dull classes.

INVOLVEMENT

CREATES

COMMITMENT .

COMMITMENT

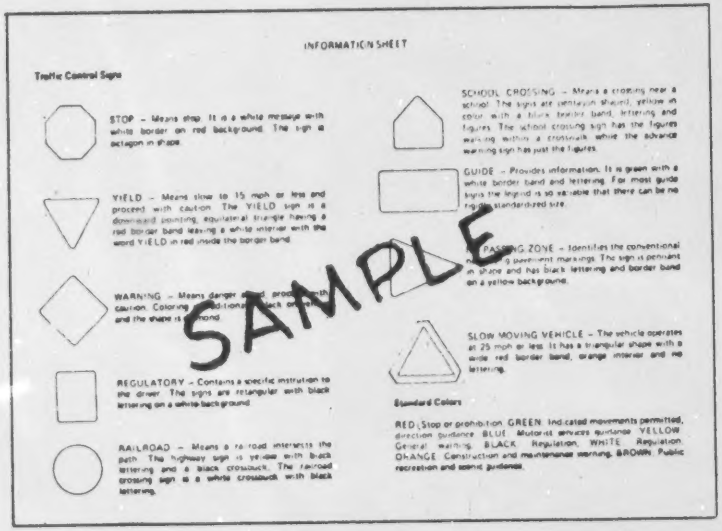
CREATES

SUCCESS.

DESCRIPTION OF FORMAT

The description of format found below is intended to provide the teacher with an overview of the various instructional materials used throughout this curriculum guide. These instructional materials have been color-coded for easier identification and implementation of unit activities. All teaching materials are printed on yellow paper. All appedices are printed on white paper. This curriculum is composed of the following instructional materials: 1. Information Sheets; 2. Format Sheets; 3. Individualized Learning Guide Sheets; 4. Transparency Original Sheets; 5. Reinforcement Activity Sheets; and 6. Appendices.

1. INFORMATION SHEETS: *Information Sheets* are printed on yellow paper and precede all other instructional materials. There are nine short sections to provide the instructor with needed information about bicycles. The *Information Sheets* help to prepare the instructor so that he will have the knowledge to teach and answer questions about bicycles. Before beginning instruction it is recommended that the instructor read all of the *Information Sheets.*



INFORMATION SHEET

Traffic Control Signs

STOP – Means stop. It is a white message with white border on red background. The sign is octagon in shape.

YIELD – Means slow to 15 mph or less and proceed with caution. The YIELD sign is a downward pointing, equilateral triangle having a red border band leaving a white interior with the word YIELD in red inside the border band.

WARNING – Means danger ... proceed with caution. Coloring ... and the shape is diamond.

REGULATORY – Contains a specific instruction to the driver. The signs are rectangular with black lettering on a white background.

RAILROAD – Means a railroad intersects the path. The highway sign is yellow with black lettering and a black crossbuck. The railroad crossing sign is a white crossbuck with black lettering.

SCHOOL CROSSING – Means a crossing near a school. The signs are pentagon shaped, yellow in color with a black border band, lettering and figures. The school crossing sign has the figures walking within a crosswalk while the advance warning sign has just the figures.

GUIDE – Provides information. It is green with a white border band and lettering. For most guide signs the legend is so variable that there can be no ... standardized size.

... PASSING ZONE – Identifies the conventional ... pavement markings. The sign is pennant in shape and has black lettering and border band on a yellow background.

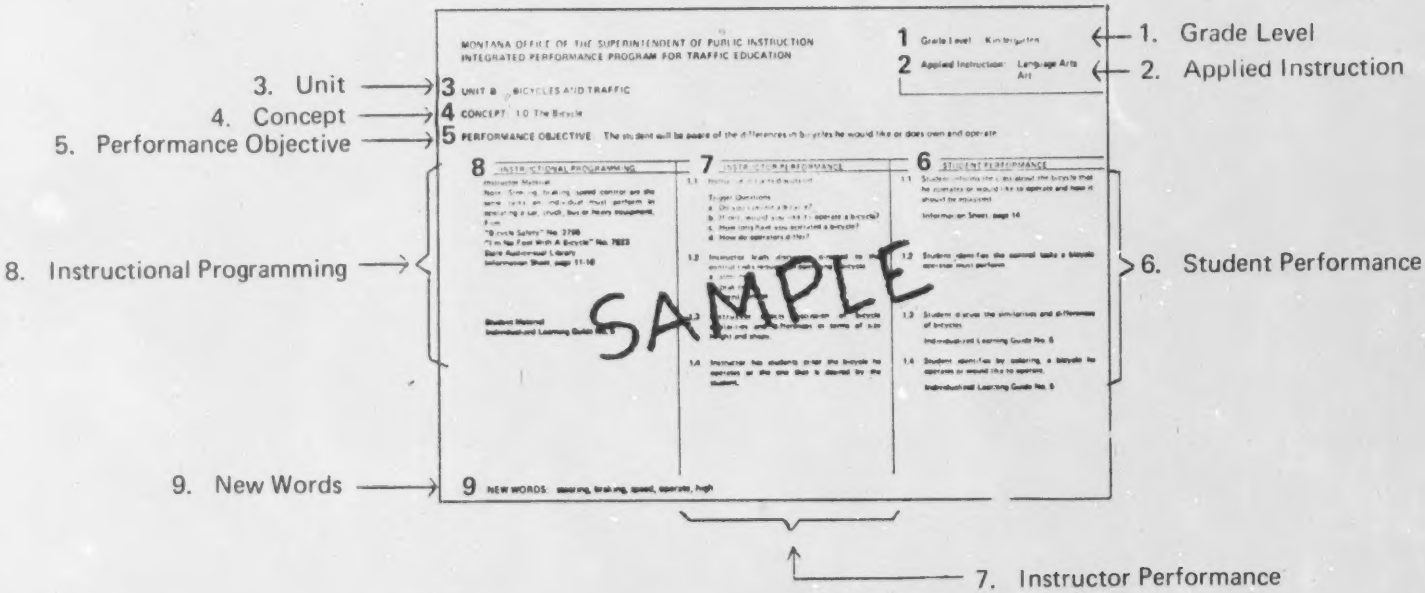
SLOW MOVING VEHICLE – The vehicle operates at 25 mph or less. It has a triangular shape with a wide red border band, orange interior and no lettering.

Standard Colors

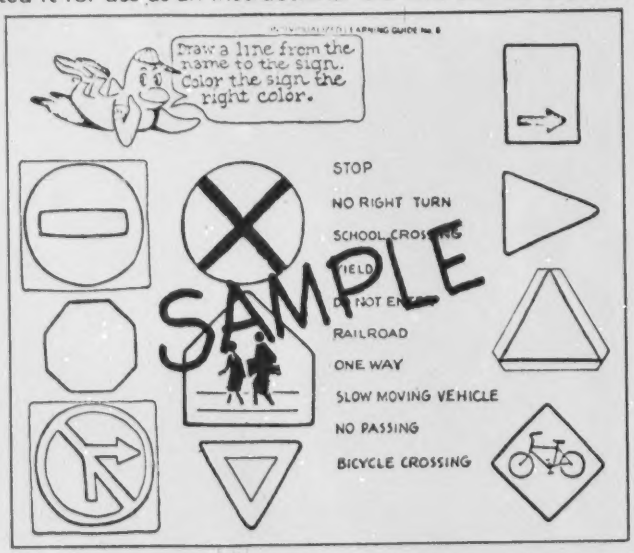
RED, Stop or prohibition. GREEN. Indicated movements permitted, direction guidance. BLUE. Motorist services guidance. YELLOW. General warning. BLACK. Regulation. WHITE. Regulation. ORANGE. Construction and maintenance warning. BROWN. Public recreation and scenic guidance.

SAMPLE

2. FORMAT SHEETS: *Format Sheets* are printed on yellow paper and provide the instructor with the following information: (1) Grade Level – indicates grade level for which this material is best suited; (2) Applied Instruction – indicates the subject matter in your existing curriculum that most closely applies to the specific concept being taught; (3) Unit – indicates the major topic being covered; (4) Concept – indicates a single idea to be taught; (5) Performance Objective – indicates what it is the student should know, feel, or be able to do at the completion of the instruction; (6) Student Performance Column – identifies what activity the student will be doing in order to learn the *Performance Objective*. Each student activity has a number. the first digit of that number corresponds with the *Concept* number. The second digit indicates which activity it is. This column also indicates which *Individualized Learning Guide Sheets* and *Transparency Original Sheets* are used with a particular student activity; (7) Instructor Performance Column – identifies what it is that the instructor will be doing to assist the student in achieving the *Performance Objective*. The number assigned to a specific instructor performance activity will correspond to an appropriate student performance activity; (8) Instructional Programming Column – lists the various instructional materials that a teacher can use to assist the student in learning the particular objective; (9) New Words – identifies the new safety words that are used with a particular *Concept*. This list is intended to enable the teacher to explain the words or substitute the words for something more appropriate. The new words list is not intended to be a spelling list.

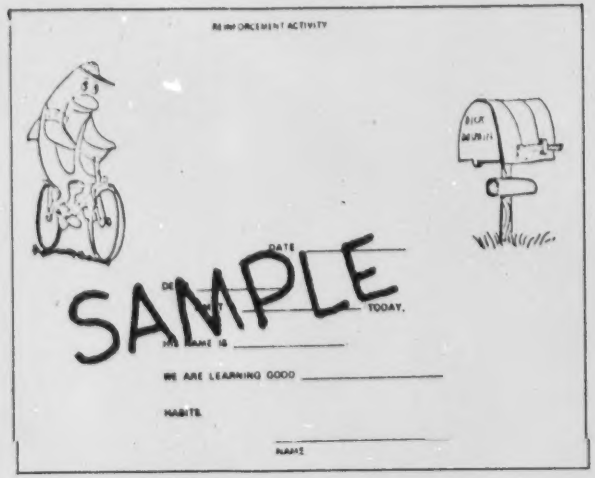


3. INDIVIDUALIZED LEARNING GUIDE SHEETS: *Individualized Learning Guide Sheets* are for use by students. They have been developed specifically to help the student do a particular activity which will allow him to achieve a specified performance objective. *Individualized Learning Guide Sheets* follow the *Format Sheet* that listed it for use as an instructional aid and can be duplicated in quantity.



4. TRANSPARENCY ORIGINAL SHEETS: *Transparency Original Sheets* are designed for reproduction into a transparency that could be used on an overhead projector.

5. REINFORCEMENT ACTIVITY SHEETS: *Reinforcement Activity Sheets* are used to explain ways in which the teacher can enrich or reinforce a learning concept.



6. APPENDICES: *Appendices* can be found at the back of the booklet and are printed on white paper and lettered. The items found in the appendices are an array of instructional materials that could be utilized by the instructor to enhance the learning process.

Armed with this brief description of the format, we hope you will find that you can more easily use these instructional materials. Best wishes to you in your efforts to promote human preservation.

INSTRUCTOR INFORMATION

Objectives
The overall objective of this integrated approach to traffic safety is to provide a tool for instruction of students in the knowledge and skill needed to cope with the traffic environment. This program maintains a positive approach to safety and presents a "way of life," not restrictive rules in a negative approach.

Integrated
Material has been provided to integrate not add to the already existing elementary program. Although multiple activities are provided a selective approach to relevant needs of your student is encouraged.

Time
A time span is not provided because of variation and need of flexibility for the instructor. Note that format sheets do not dictate time span. The integrated approach cannot be truly utilized if a time span is dictated.

Symbols
Symbols have proven to be effective in our society (i.e., by Smokey The Bear and Woodsey Owl). You are encouraged to use the symbols (Dick Dolphin, Bicyclist; Patty Penguin, Passenger; Seemore Seal, Pedestrian) as a means of communication. The choice of symbols was made because these three animal characters are not likely to appear in an adverse situation, such as dead. Expansion is allowable to other areas of safety endeavor such as water safety. Stylization of the characters in simple lines allows a teacher and student to draw the symbols easily. The symbols are creatures which a student is not taught to stay away from and fear. We hope you will enjoy the menagerie.

Commercial Material
Commercial materials are not emphasised since most items span several grade levels. Below are listed some sources which may be helpful aids.

T–shirts can be ordered in the school's colors with one of the three characters, Dick Dolphin, Patty Penguin, Seemore Seal. Character can be printed on the front or back of shirt. The cost for a minimum of 12 is $27.00 and any over 12 is $2.25 each. Order "Traffic Characters" at The Emporium, address:

Wild West Marketing
2 West Main
Bozeman, MT 59715

State size, color and number requested.

Verses and coloring, levels K–2, request free booklets:

"Children's Safety Lessons"
Kemper Insurance
Long Grove, IL 60049

Large pages for coloring about Montana safety, levels K–2, request "Coloring Book":

Montana Highway Patrol Bureau
1014 National Avenue
Helena, MT 59601

Folder "The ABC's of Bike Riding," levels 1–2. For additional folder subjects write:

Imagination, Inc.
1821 University Avenue
St. Paul, MN 55104

Also "10 Little Bike Riders," small folder of verses.

INFORMATION SHEET

Stories and activities in "Traffic Safety Guide For Teachers," inquire at local AAA office or write:

American Automobile Association
Traffic Engineering and Safety Department
1712 G. Street N.W.
Washington, D.C. 20006

Suitable for levels 1–3.

"The Bike Book" has hints to rider and bikes available, levels 2–5, write and refer to stock No.399.91:

National Safety Council
425 North Michigan Avenue
Chicago, IL 60611

Hints and check list for proper care of bike and rules for more advanced bike drivers, levels 3–5, request "Hi! Bike Pilots!":

Safety Department
Allstate Insurance Companies
Allstate Plaza
Northbrook, IL 60062

Booklet presents compact lesson for bike behavior in cartoon fashion. Write for "Be An Expert Bike Driver," levels 4–6.

Channing L. Bete Co., Inc.
Greefield, MA 01301

Pamphlet to win the State Farm Safe Bicycling Award, levels 4–6, request at local State Farm Insurance Companies or write:

State Farm Insurance Companies
Bloomington, IL 61701

"Five Keys To Safe Bicycling" from the film "The Bicycle Driver" covers five areas to consider for being good drivers. Levels 5–6, request from:

Safeco Insurance Companies
Safeco Plaza
Seattle, WA 98185

Hints to teacher about activities, explains the why for some of the rules, suggestions for involvement, levels 4–6, inquire at local AAA office or write:

American Automobile Association
Safety Department
1712 G. Street N.W.
Washington, D.C. 20006

Request Traffic Safety Guide for Teachers.

General Map Reading Rules and the "how to" of reading maps. Levels 5–6, request Map Reading and Trip Planning Course, product No. 813, Packet of 35, shipping weight 3 lbs., cost $7.95.

Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, MO 63701

A message to Bike Riders and a safety check list, level 6:

The Texas Safety Association
1623 South Lamar Blvd.
Austin, TX 78704

For Level 6, a Bicycle Safety Information Test and Answer Sheet to be used as an aid to learning, request from:

School and College Department
National Safety Council
425 North Michigan Avenue
Chicago, IL 60611

Highlights for assisting you in the care and operation of your 10 or 5 speed bicycle. Level 6, request Schwinn Care and Operation Check List:

Schwinn Bicycle Co.
1856 North Kostner Avenue
Chicago, IL 60639

INFORMATION SHEET

General information for all levels available from:
Scott, Foresmen and Company
855 California Avenue
Palo Alto, CA 94394 (large poster with traffic signs and problem solving method);
Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, Mo 63701
(catalog for traffic education);
Kemper Insurance
Long Grove, IL 60049
(booklets);
Texas Safety Association
1623 South Lamar Blvd.
Austin, TX 78704
(general information);
Bicycle Institute of America
122 East 42nd Street
New York, N.Y. 10017
(statistics and information)
Insurance Institute for Highway Safety
1725 DeSales Street, N.W.
Washington, D.C. 20036
(general information).

Ideas
Additional popular ideas, gleaned from pilot schools, include making booklets with the Individualized Learning Guides, displaying posters in the school and in the community, and having upper grade students teach concepts to lower grade levels. Ideas contributed by teachers are incorporated in appropriate sections.

Film Library
Request all film through the Montana Audiovisual Library, Office of the Superintendent of Public Instruction, Helena, MT 59601, by title and number. Read film description and date film developed to assure current and relevant information is used.

Reinforcement Activities
Reinforcement activities to enrich and reinforce concepts are included for your selective use.

Problem Solving Method
A systematic process of identifing, predicting, deciding and acting, when confronted with a potentially dangerous situation, is essential to a student. A student must first identify the hazard, predict what will occur if certain actions are taken or not taken and then by calling on stored memory of past experience or knowledge, correctly decide on an appropriate action. Finally, he must act or react to successfully manage the encounter. These situation occur as a student crosses intersections, rides in the family car or on the school bus. They occur in the school and home environment, on the playground, and when riding bicycles or motor equipment.

Although information is received through all of the senses the greatest percent is preceived through vision. It is therefore essential to teach perception.

Visual perception is identifing, "mental decoding" of the information is predicting and deciding, then appropriate action can be taken.

In the early grade levels predicting is a difficult concept but not impossible. For some students identify, decide and act will provide a short version of the process.

Survival in many situations can depend on a problem solving method and it is the responsibility of the instructor to provide methods to the students. IPDA is a viable method in traffic education as well as in simple decisions.

Helpful aid: "Problem Solving In Everyday Safety"
A 92 transparency program in nine teaching units on Safety Education. Teaches safety consciousness as a frame of mind and mode of behavior. Most important the student is the one who arrives at the solution because he solves the problem himself. Distributed by:
Bumpa-Tel, Inc.,
P.O. Box 611
Cape Girardeau, MO 63701
Cost: $99.95 for complete set.

Montana Motor Vehicle Code "Rules of the Road" that affect bicyclists as of July 1, 1974 are listed below.

32–2184. EFFECT OF REGULATIONS. (a) It is a misdemeanor for any person to do any act forbidden or fail to perform any act required in this article (32–2184 to 32–2190).

(b) These regulations applicable to bicycles shall apply whenever a bicycle is operated upon any highway or upon any path set aside for the exclusive use of bicycles subject to those exceptions stated herein.

32–2185. TRAFFIC LAWS APPLY TO PERSONS RIDING BICYCLES. Every person riding a bicycle upon a roadway shall be granted all of the rights and shall be subject to all of the duties applicable to the driver of a vehicle by this act, except as to special regulations in this article (32–2184 to 32–2190) and except as to those provisions of this act which by their very nature can have no application.

32–2186. RIDING ON BICYCLES. A person propelling a bicycle shall not ride other than upon or astride a permanent and regular seat attached thereto.

32–2187. CLINGING TO VEHICLES. No person riding upon any bicycle, coaster, roller skates, sled, or toy vehicles shall attach the same or himself to any vehicle upon a roadway.

32–2188. RIDING ON ROADWAYS AND BICYCLE PATHS. (a) Every person operating a bicycle upon a roadway shall ride as near to the right side of the roadway as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction.

(b) Persons riding bicyles upon a roadway shall not ride more than two (2) abreast except on paths or parts of roadways set aside for the exclusive use of bicycles.

(c) Whenever a usable path for bicycles has been provided adjacent to a roadway, bicycle riders shall use such path and shall not use the roadway.

32–2189. CARRYING ARTICLES. No person operating a bicycle shall carry any package, bundle, or article which prevents the driver from keeping at least one (1) hand upon the handle bars.

32–2190. LAMPS AND OTHER EQUIPMENT ON BICYCLES. (a) Every bicycle when in use at nighttime shall be equipped with a lamp on the front which shall emit a white light visible from a distance of at least five hundred (500) feet to the front and with a red reflector on the rear of a type approved by the board which shall be visible from all distances from fifty (50) feet to three hundred (300) feet to the rear when directly in front of lawful upper beams of head lamps on a motor vehicle. A lamp emitting a red light visible from a distance of five hundred (500) feet to the rear may be used in addition to the red reflector.

(b) Every bicycle shall be equipped with a brake which will enable the operator to make the braked wheels skid on dry, level, clean pavement.

Be sure to check city ordinances for local laws.

Bicycle Size

For safety, a student's bicycle must be the right size. If the bike is too large or too small, it will be hard to control and will make the rider tired much more quickly.

If the bicycle is too large, it will sway from side to side and the rider can't come to a stop without leaning to one side. If it is too small, the rider will bump his knees and the bike will be difficult to steer.

Also, bicycling is easier and more fun if the leg muscles can be flexed fully. The muscles won't tire as easily as when the muscle doesn't get fully extended.

Measure the distance from the child's crotch to the floor while wearing flat heeled shoes to see what size bike a child needs. If the leg length is between 29½ and 35 inches, a 19" frame is recommended. From 35" to 38", a 23" or 24" frame is recommended. Above 38", an adult's bike (26" or more) can be ridden.

When buying a bike, one should also check for accessories. The reflector should be seen from at least 300 feet. The front light should be white and be visible at least 500 feet away. The horn or bell should be audible at least 100 feet away. There should be a carrier or basket according to needs. There should be a mud guard and a proper chain guard.

Stopping

Bicycles equipped with front wheel caliper brakes, common for high rise bicycles, can be stopped in a shorter distance than bicycle with rear coaster brakes, typical of conventional models. The data available indicates that with caliper brakes, stopping distances increase with rider weight. No such variation is found with coaster brakes. Rear coaster brakes and rear caliper brakes are equally effective in panic stops.

Generally, hard rear wheel braking is much more easily handled by the experienced driver than front wheel braking.

When the operator stands upright on the pedals, hard front wheel braking can lead to forward pitch-over of the rider. When this occurs, the motion is so rapid that there is little that the unsuspecting rider, even a very experienced one, can do to avoid a bad fall. Findings show that as long as the rider remains seated, on either type of bicycle, a potentially injurious pitch-over could not be induced with either bicycle. On dry, level asphalt, the test rider was able to make both bicycles pitch-over by standing on the pedals and applying hard front wheel braking. On a polished concrete surface, only the high rise bicycle could be made to pitch-over.

The bicycle must have a brake that takes hold quickly and makes the rear wheel skid on a dry, clean, level pavement. The arm of the coaster brake must be firmly attached to the frame; otherwise, braking power is lost. The brake pads on bicycles should be inspected weekly for wear and proper positioning. Brake cables should be checked for wear, fraying, and binding. Caliper brakes lose their efficiency when wet. Extreme caution must be exercised when riding in wet weather or in areas where heavy dew or puddles might wet the pads and rims.

Traffic Control Signs

STOP – Means stop. It is a white message with white border on red background. The sign is octagon in shape.

YIELD – Means slow to 15 mph or less and proceed with caution. The YIELD sign is a downward pointing, equilateral triangle having a red border band leaving a white interior with the word YIELD in red inside the border band.

WARNING – Means danger ahead, proceed with caution. Coloring is traditionally black on yellow and the shape is diamond.

REGULATORY – Contains a specific instrution to the driver. The signs are rectangular with black lettering on a white background.

RAILROAD – Means a railroad intersects the path. The highway sign is yellow with black lettering and a black crossbuck. The railroad crossing sign is a white crossbuck with black lettering.

SCHOOL CROSSING – Means a crossing near a school. The signs are pentagon shaped, yellow in color with a black border band, lettering and figures. The school crossing sign has the figures walking within a crosswalk while the advance warning sign has just the figures.

GUIDE – Provides information. It is green with a white border band and lettering. For most guide signs the legend is so variable that there can be no rigidly standardized size.

NO PASSING ZONE – Identifies the conventional no passing pavement markings. The sign is pennant in shape and has black lettering and border band on a yellow background.

SLOW MOVING VEHICLE – The vehicle operates at 25 mph or less. It has a triangular shape with a wide red border band, orange interior and no lettering.

Standard Colors

RED: Stop or prohibition. GREEN: Indicated movements permitted, direction guidance. BLUE: Motorist services guidance. YELLOW: General warning. BLACK: Regulation. WHITE: Regulation. ORANGE: Construction and maintenance warning. BROWN: Public recreation and scenic guidance.

Traffic Control Signals

Each traffic signal has a specific meaning for the bicycle operator.

GREEN LIGHT – indicates that the bicyclist may proceed if the way is clear.

RED LIGHT – indicates that the bicyclist is to stop.

YELLOW LIGHT – is a caution light indicating that the bicyclist is not to proceed through the intersection until the light turns green, unless already in or very near to the intersection when the light turned yellow.

GREEN ARROW – indicates that the bicyclist may proceed cautiously in the direction that the arrow is pointing.

FLASHING RED LIGHT – indicates that the bicyclist is to come to a complete stop and then proceed if the way is clear.

FLASHING YELLOW LIGHT – indicates that the bicyclist is to reduce his speed and then proceed with caution.

Traffic Control Markings

Markings have definite and important functions to perform in a proper scheme of traffic control. In some cases, they are used to supplement the regulations or warnings of other devices such as traffic signs and signals.

Pavement markings have definite limitations. They are obliterated by snow may not be clearly visible when wet, and may not be very durable when subjected to heavy traffic.

Longitudinal pavement marking color use is as follows: Yellow lines delineate the seperation of traffic flows in opposing direction or mark the left boundary of the travel path at locations of particular hazard. White lines delineate the seperation of traffic flows in the same direction. Red markings delineate roadways that shall not be entered or used by the viewer of those markings.

Broken lines are permissive as opposed to solid lines being restrictive in character. Width of lines indicates the degree of emphasis. Double lines indicate maximum restrictions.

Curbs painted red or yellow indicate no parking.

Horizontial pavement markings serve as a guide for pedestrians. At non-intersectional locations, these markings legally establish the crosswalk. Horizontal line may also indicate a stop line to the bicyclist.

Other markings may indicate a railroad crossing, directional arrows and word markings.

Hand Signals

The use of hand signals now is commonly accepted as a safe riding practice. The motor vehicle laws of Montana require such signals. Signaling intention to turn, slow down, or stop gives the motorist behind, as well as the one approaching, an opportunity to anticipate the cyclist's movement. The bicycle operator should signal well in advance so that both hands are on the handlebars when the maneuver is made. This is especially important when the bicycle is equipped with hand brakes. Since all signals are made with the left hand, it is important that the control for the rear brake is located on the right handlebar. It is a simple matter to switch the brake control if necessary. Unless local regulations differ, standard hand signals are as follows: Left turn–hand and arm extended horizontally; Right turn–hand and arm extended upward; Stop and/or slow–hand and arm extended downward.

In order to turn left at intersections in the business area or where there is heavy or high-speed vehicular traffic, a bicyclist should dismount and follow the pedestrian crosswalk to the far right corner, then proceed across at right angles. In this way, he crosses one direction of traffic at a time. He should avoid heavily traveled routes if others are available. If riding on the sidewalk is allowed by ordinance, or if the driver is too young to be allowed in traffic, care should be taken when riding on the sidewalk to avoid striking or alarming pedestrians.

Skills

It is imperative that the cyclist develop skill in balancing and pedaling to avoid swerving into traffic, running off the edge of a sidewalk or highway, and to avoid hitting a pedestrian or fixed object at a narrow passing. Parents have a responsibility to be sure the child has the skill to cope with traffic before permitting him to drive on the street. Learners should be taught to coast with the pedals level (horizontal) in readiness to apply the brakes, and to avoid scraping the lower pedal on turns.

When overtaking slow moving vehicles, a cyclist must be careful to avoid being struck or crowded by vehicles about to turn into a driveway or alley. The cyclist must be especially alert, when passing parked cars, for doors which might be opened in his path.

Parked cars with someone in the driver's seat should be given as wide a berth as possible. A cyclist should never ride into the roadway from the yard, driveway or alley without looking carefully in all directions.

It is highly desirable to remain inside the car during an automobile collision. Not so with a bicycle. The rider has to free himself from the bicycle immediately when a collision appears imminent. Design features that can be impacted by the rider or hinder his ability to free himself, such as high rise handlebars and gear-shift levers, should be avoided. The horizontal frame member in front of the rider on all boys' bicycles tends to make it more difficult for the rider to free himself from the bike. Therefore, learners and novice riders should use girls' style bicycles since they are easier to dismount in case of a collision.

Carrying more passengers than the bicycle is designed and equipped for is dangerous. Passengers obstruct the driver's vision, make balancing difficult, and increase the danger of getting part of the body or clothing caught in the spokes. Two on a bicycle also greatly increases the stopping distance. The "polo" or "banana" seat on the high rise bicycle appears to be designed to carry two; however, such is not the case.

All human activity involves a degree of risk. What becomes important then is instilling in student a personal and social attitude toward their choices of action in traffic interaction. For this reason, at every age, the students are encouraged to consider the consequencies.

The primary consideration becomes how much risk a person is ready to accept in his life style.

Intersections

CONTROLLED – (a) If more than one vehicle operator arrives at a four-way stop at the same time, give the driver on the right the right-of-way, but only after they have come to a full stop. Courtesy dictates which driver proceeds.

(b) If only one of the crossroads has a stop sign, the driver in that lane must stop, then yield to all other vehicles and pedestrians.

(c) If there is a red light or stop sign, the bicyclist should stop behind the white line or marked or unmarked crosswalk.

UNCONTROLLED – (a) When two bicyclists arrive at an uncontrolled intersection at about the same time, the bicyclist on the left must yield the right-of-way to the driver on the right.

(b) The bicyclist should never enter the intersection until it is safe to enter.

(c) The bicyclist should yield the right-of-way to pedestrians that are in the crosswalk.

(d) The bicyclist should never make a turn in front of a moving vehicle.

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Facts

For the five years, 1965-69, only one year,1967, shows an even division between urban and rural areas for bicycle-motorcar fatalities; for the other four years, somewhat more than half occurred in rural areas (defined as having less than 2,500 inhabitants, except those areas classified "urban" by the U.S. Census Bureau).

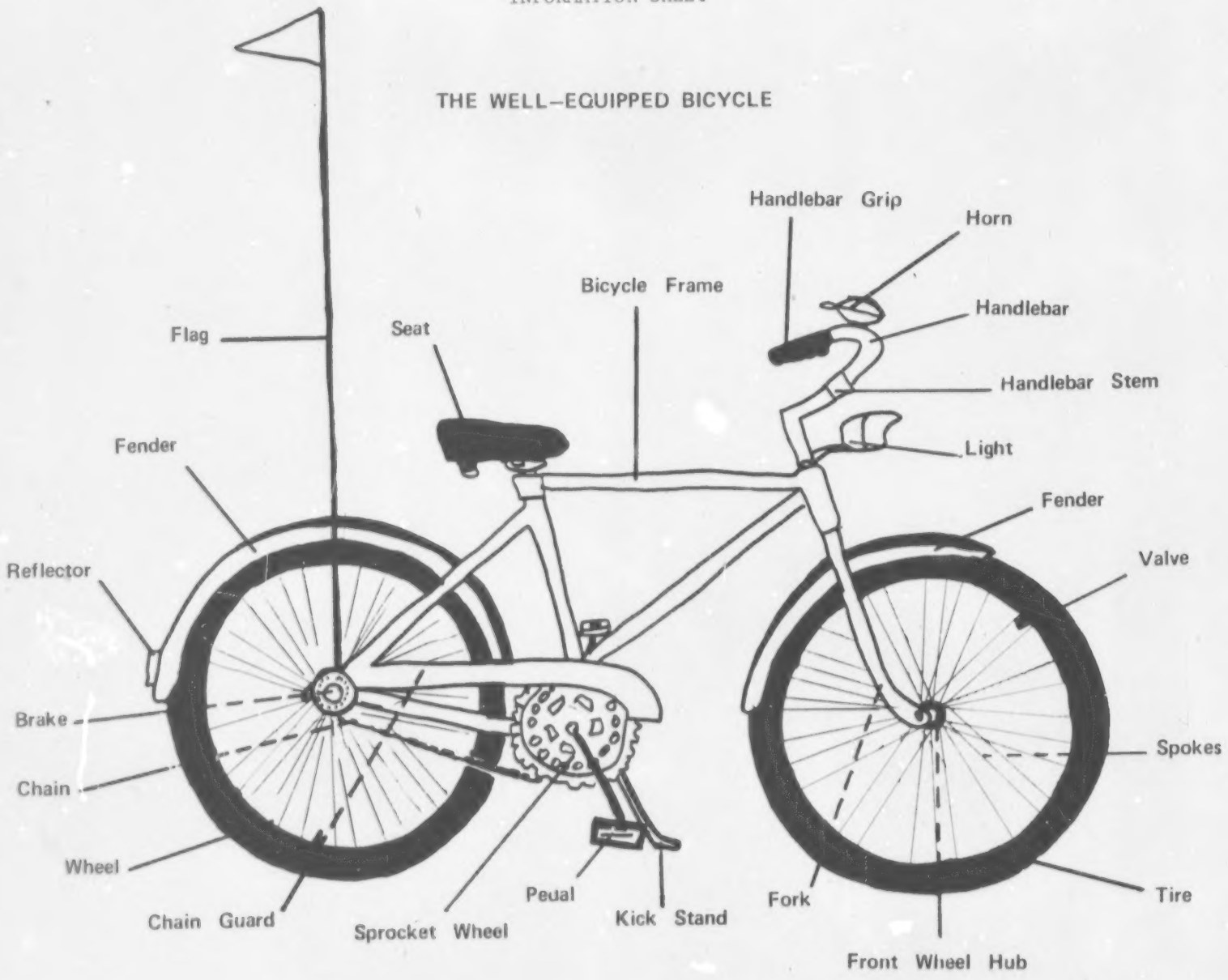
Nonfatal accidents are more likely to occur in residential areas (city streets), while fatal accidents are most likely to occur in open country (major and minor roads). This is probably related to the higher speeds of motorcars outside the city or town. Compared with all fatal motor vehicle accidents, fatal bicycle accidents show a larger proportion occurring where there is some kind of intersection of vehicle pathways. This is also true of nonfatal accidents.

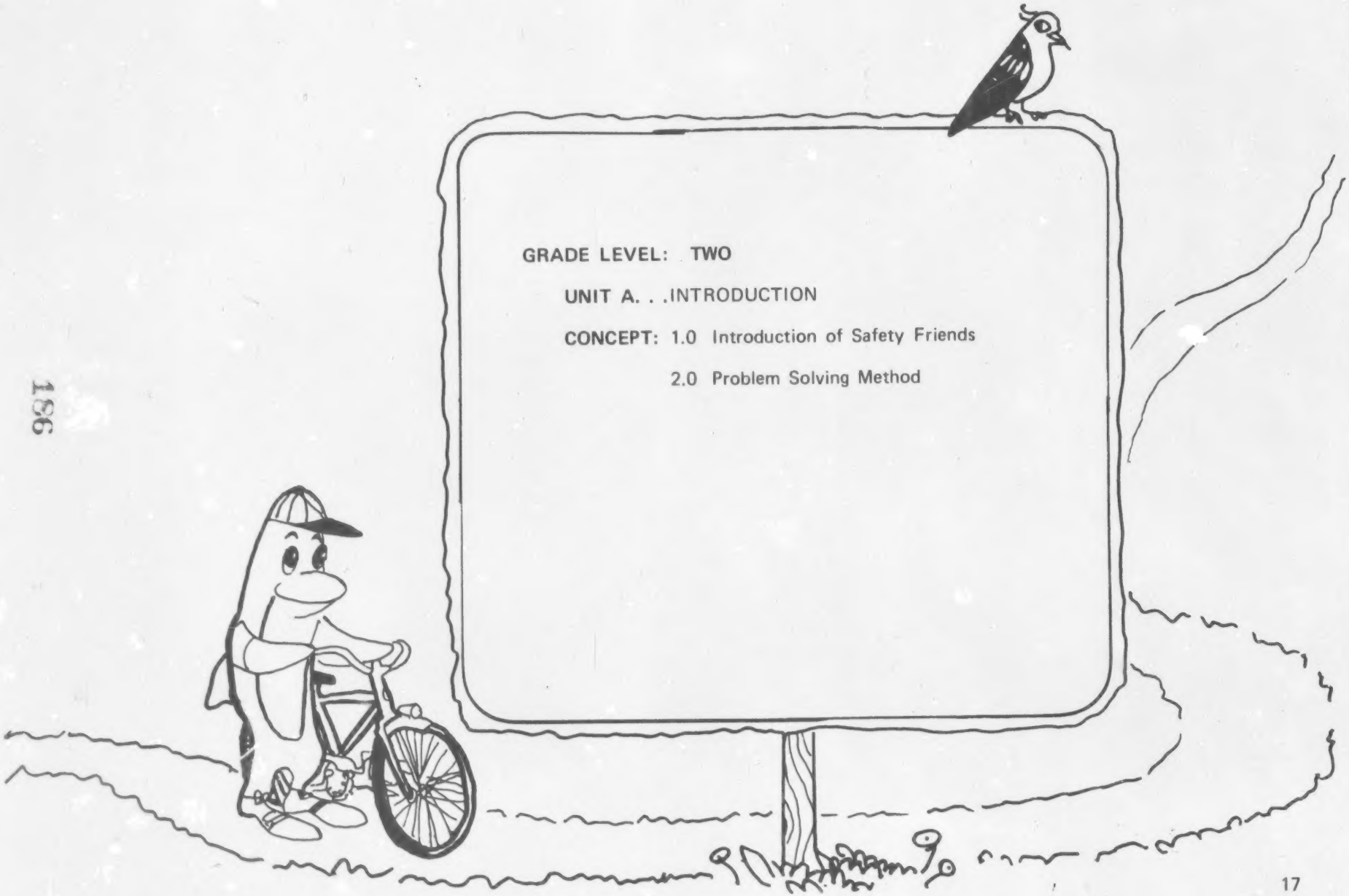
One study found 96% of all bicycle-motorcar collisions occurred within one mile from home, and 57% within one block; also, intersections of some kind were the most frequent site of collisions: ". . . 82% of collisions relate to maneuvers by the bicyclist to enter into, to turn across, or cross through a flow of traffic."

In two studies, about 40% of the cyclists of grade-school age, said they ride on the right side of the street, 40–50% said they ride on both sides, and 10–15% said they ride on the left side. Some ride on the sidewalk. Apparently, there is some confusion, lack of knowledge, or disregard with respect to rules and regulation of safe operating procedures.

*Bicycle fatalities will exceed 10,000 in 1974.
*Ninety-percent of bicyclist fatalities due to bicycle-car collisions are males.
*In a study of 275 collisions with cars, 93% involved male bicylcists.
*In a 5 year study, over 60% of the bicycle-car fatalities and 75% of the injuries were in the age group of five through fourteen.
*After school and early evening hours are the peak periods for collisions.
*In a great number of bicycle-car collisions, the driver of the car is not cited for a violation.
*Twenty-percent of the bicycle collisions with cars involved a passenger or a hand-held load.
*It has been pointed out, many bicyclists were not riding their own bicycle.

THE WELL-EQUIPPED BICYCLE





GRADE LEVEL: TWO

UNIT A. . .INTRODUCTION

CONCEPT: 1.0 Introduction of Safety Friends

2.0 Problem Solving Method

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Two

Applied Instruction: Language Arts

UNIT A. . .INTRODUCTION

CONCEPT: 1.0 Introduction of Safety Friends

PERFORMANCE OBJECTIVE: The student will identify the name and activity of each of the safety friends.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 7 **Student Material** Transparency Original No. 1 **Reinforcement Activity** Letter to parents, page 21	1.1 The instructor/student will discuss the safety friends and their involvement in activities. **Trigger Questions** a. What is a friend? b. What do you do for a friend? c. How can your new friend help you?	1.1 Student will identify Dick Dolphin and determine the involvement of Dick Dolphin as a friend learning about bicycle operation. Transparency Original No. 1

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NEW WORDS: friend, safety, mile, pedestrian, passenger, operator, habits

HELLO

WE ARE THE FRIENDS OF HUMAN PRESERVATION

WE WILL BECOME YOUR SPECIAL FRIENDS

SO LET US INTRODUCE OURSELVES. . .

I AM PATTY PENGUIN.

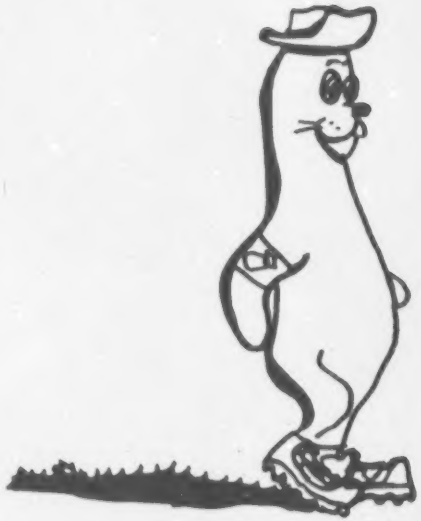
I AM THE PASSENGER.

I RIDE WITH YOU.

I AM DICK DOLPHIN.

I AM A BICYCLIST.

I OPERATE A BICYCLE.



I AM SEEMORE SEAL.

I AM A PEDESTRIAN.

I WALK WITH YOU.

WE ARE SYMBOLS.

WHAT OTHER SYMBOLS CAN YOU THINK OF?

WHAT DO THE SYMBOLS STAND FOR?

POEM OF INTRODUCTION

WE'RE HERE TO BE WITH YOU

ONLY A SHORT WHILE —

BUT WHAT YOU'LL LEARN

WILL LAST MILE AFTER MILE!

DATE _____

DEAR _____:

I MET A _____ TODAY.

HIS NAME IS _____. WE ARE LEARNING

GOOD _____ HABITS.

SINCERELY,

_____

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Two

Applied Instruction: Language Arts

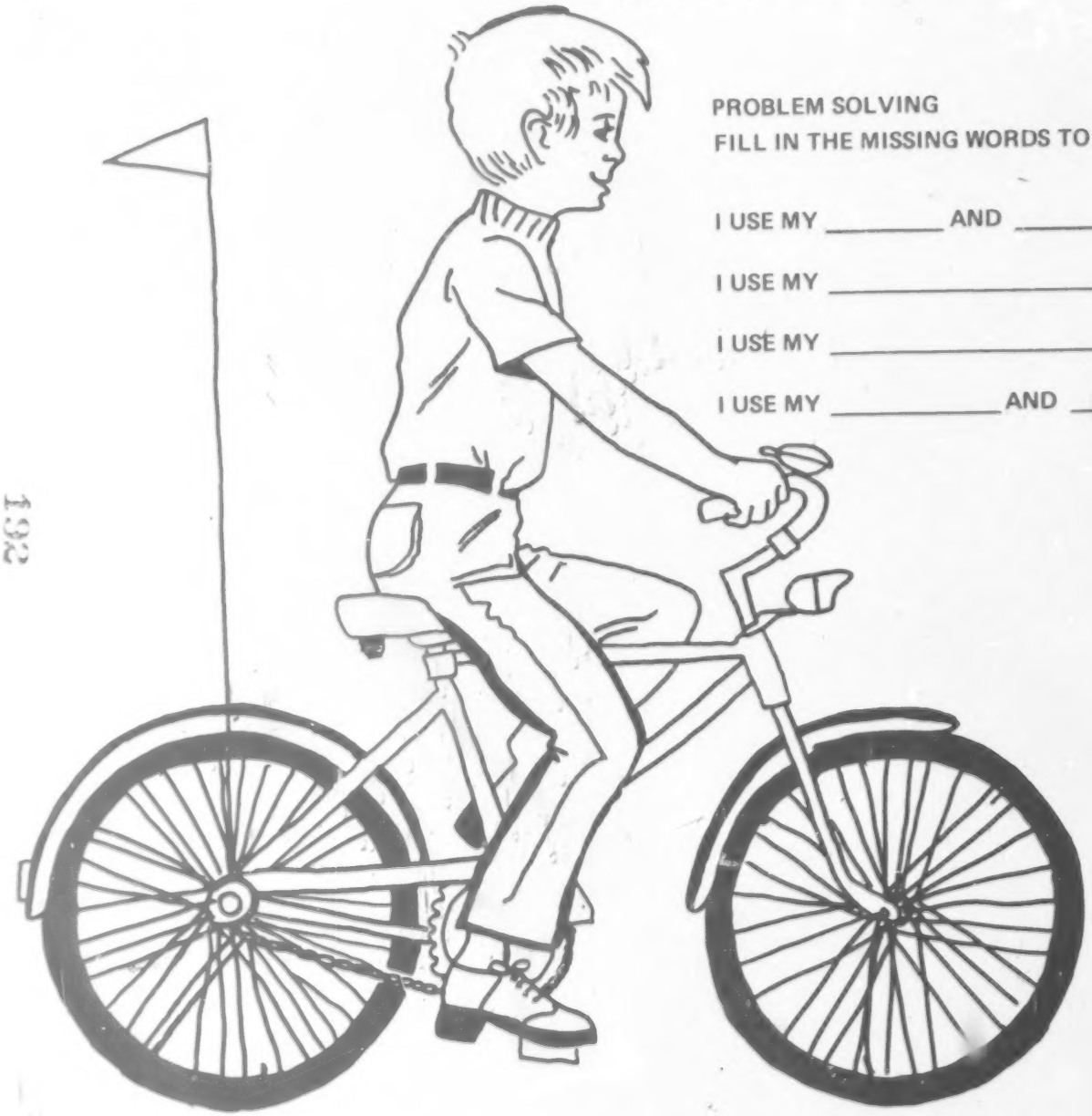
UNIT A. . .INTRODUCTION

CONCEPT: 2.0 Problem Solving Method

PERFORMANCE OBJECTIVE: The student will understand the procedure for the problem solving method of identify, predict, decide and act.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: This formula is valuable in all basic thinking processes. The complete formula is as follows. IDENTIFY – the problem or situation. PREDICT – what might happen. DECIDE – what course of action to take. ACT – take effective action. Information Sheet, page 9 **Student Material** Individualized Learning Guide No. 2 **Reinforcement Activity** Create situations familiar to the student on the board and solve using IPDA	2.1 Instructor/student discuss value of identify, predict, decide and act problem solving method.	2.1 Student understands the identify, predict, decide and act problem solving method. Individualized Learning Guide No. 2

NEW WORDS: identify, decide, act, solve, problem



PROBLEM SOLVING

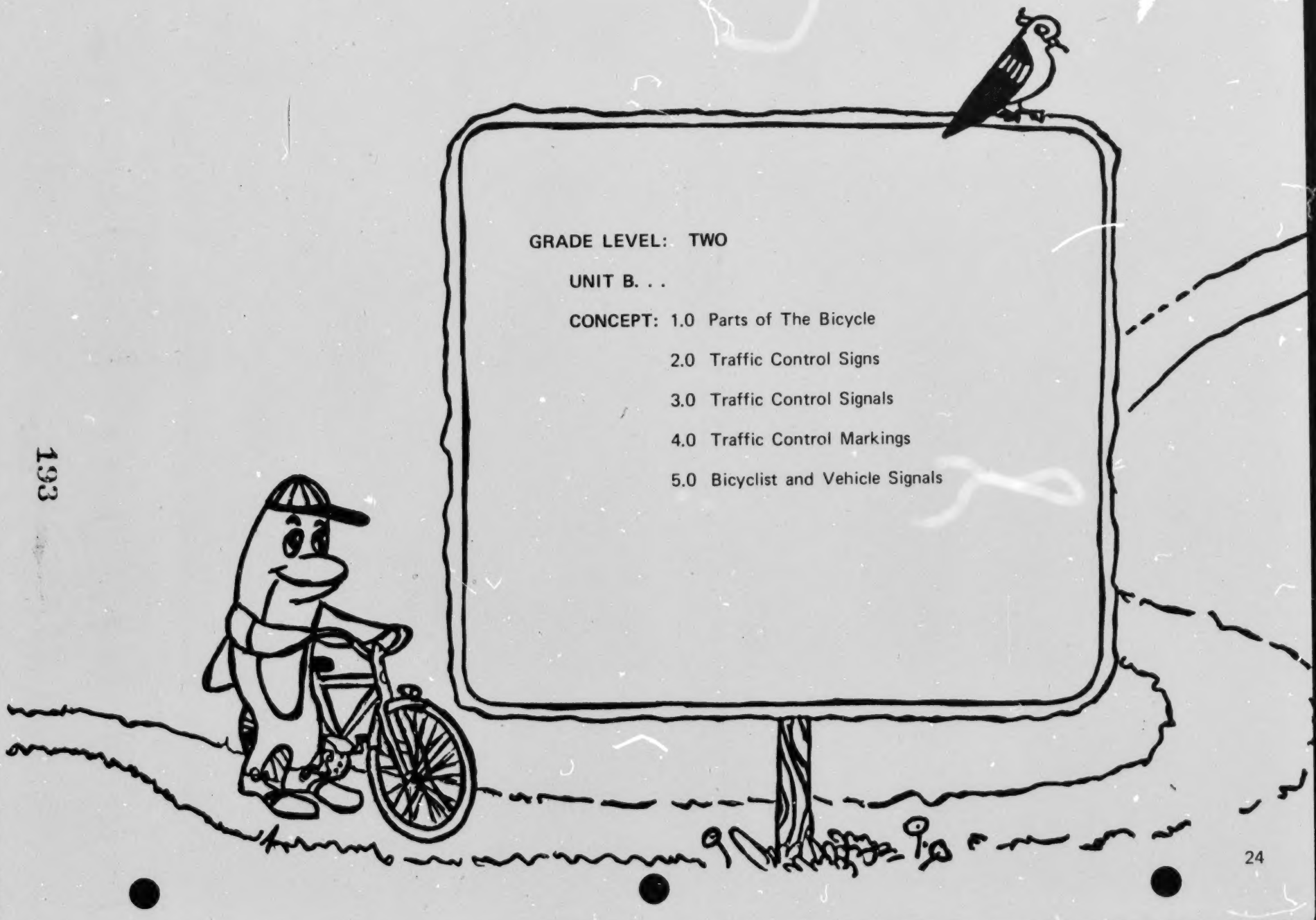
FILL IN THE MISSING WORDS TO SOLVE THE PROBLEM.

I USE MY _____ AND _____ TO IDENTIFY THE PROBLEM.

I USE MY _____ TO PREDICT WHAT TO DO.

I USE MY _____ TO DECIDE WHAT TO DO.

I USE MY _____ AND _____ TO ACT.



GRADE LEVEL: TWO

UNIT B. . .

CONCEPT: 1.0 Parts of The Bicycle

2.0 Traffic Control Signs

3.0 Traffic Control Signals

4.0 Traffic Control Markings

5.0 Bicyclist and Vehicle Signals

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Two

Applied Instruction: Language Arts
Art

UNIT B. . .BICYCLES AND TRAFFIC

CONCEPT: 1.0 Parts of The Bicycle

PERFORMANCE OBJECTIVE: The student will identify bicycle parts and their function.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Film: "Bicycle Safety" No. 2795 "I'm No Fool With A Bicycle" No. 7823 State Audiovisual Library Information Sheet, page 16	1.1 Instructor identifies through discussion, the location and function of specific parts of a bicycle. **Trigger Questions** a. Where are the pedals and what do they do? b. Where is the handlebar and what does it do? c. What parts of the bicycle are used for control?	1.1 Student discusses specific parts of a bicycle by name and function. Transparency Original No. 3
	1.2 Instructor/student discuss bicycle safety devices.	1.2 Student discusses bicycle safety devices Individualized Learning Guide No. 4
Student Material Transparency Original No. 3 Individualized Learning Guide No. 4		
Reinforcement Activity Student can take home the activity sheet to compare with his bicycle. Have students use keywords in a story.		

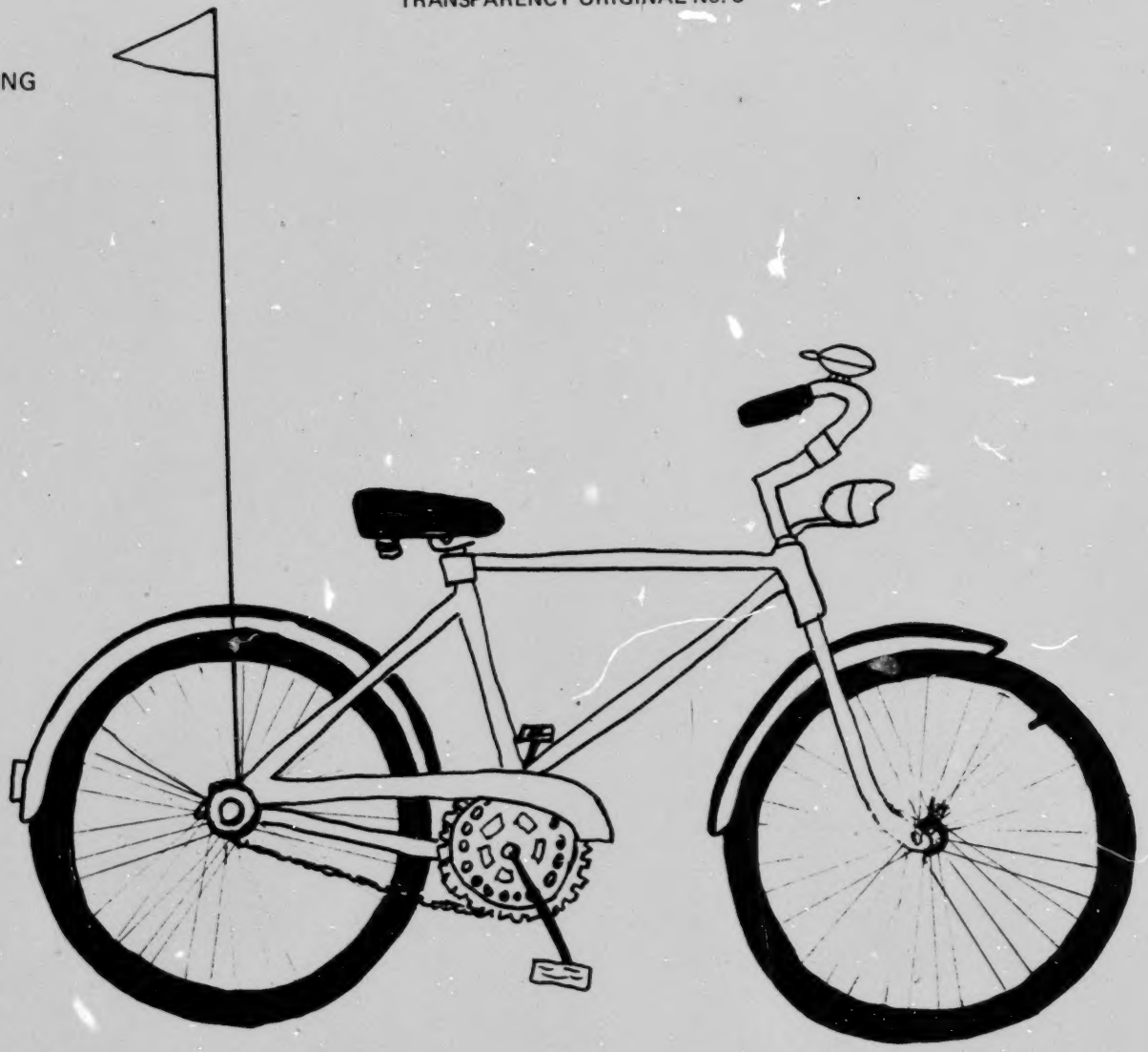
NEW WORDS: function, specific, general, pedal, handle bar, hub, fork, sprocket, frame, grip, valve, reflector, stem

TRANSPARENCY ORIGINAL No. 3

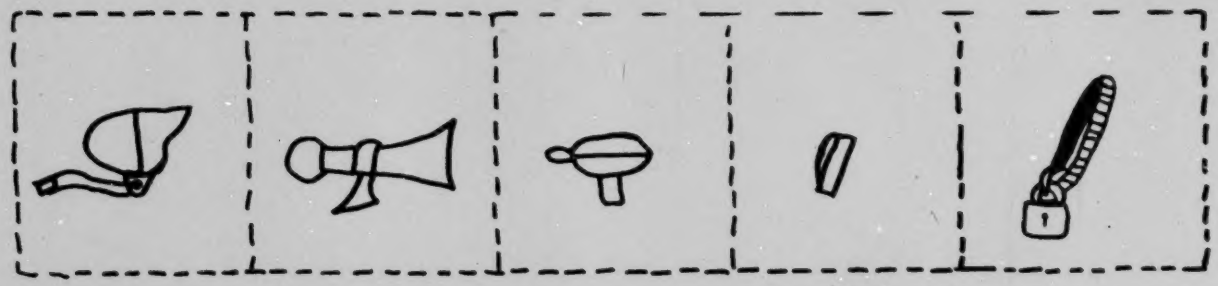
LABEL THE FOLLOWING

ON OVERHEAD.

REFLECTOR
REAR FENDER
FLAG
SEAT
BICYCLE FRAME
HORN
HANDLEBAR GRIP
HANDLEBAR STEM
LIGHT
FRONT FENDER
VALVE
SPOKES
TIRE
FORK
KICK STAND
SPROCKET WHEEL
PEDAL
CHAIN GUARD
CHAIN
BRAKE



Instructor: complete labeled bike,
information sheet page 16.



Cut and paste the safety items on the bicycle.

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Two

Applied Instruction: Language Arts
Art

UNIT B. . .BICYCLES AND TRAFFIC

CONCEPT: 2.0 Traffic Control Signs

PERFORMANCE OBJECTIVE: The student will recognize all signs of the road and demonstrate correct response to the sign.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 12 shape, color and lettering of traffic control signs. **Student Material** Individualized Learning Guide No. 5 **Reinforcement Activity** Divide into two lessons and have students locate as many signs as they can on their way to and from school. Appendix F-K	2.1 Instructor explains the significance of the shape, color and lettering of traffic control signs.	2.1 Student recognizes the correct response to signs by color, shape, symbol and message. Individualized Learning Guide No. 5

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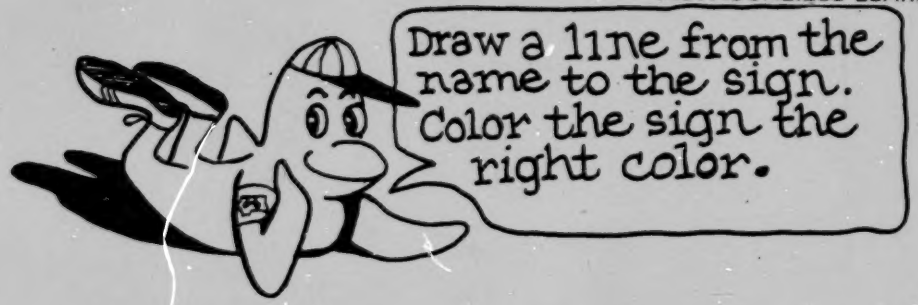
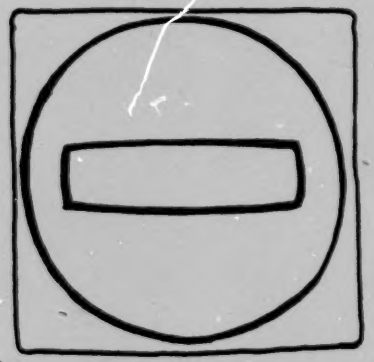
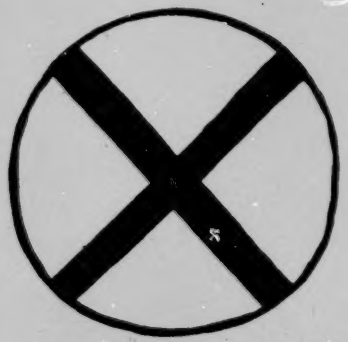
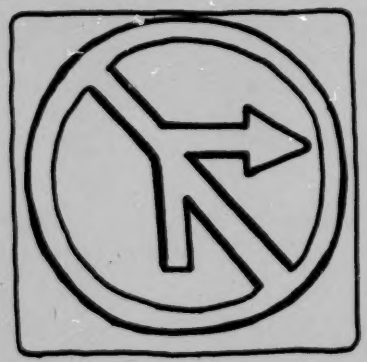
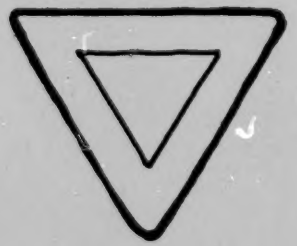
NEW WORDS: octagon, diamond, oblong, rectangle, square, circle, triangle, guide, symbol, regulatory











STOP

NO RIGHT TURN

SCHOOL CROSSING

YIELD

DO NOT ENTER

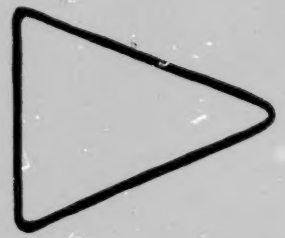
RAILROAD

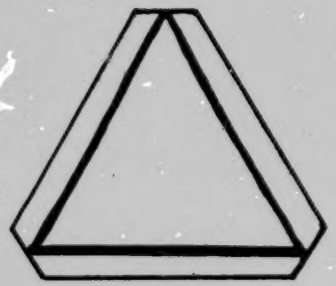
ONE WAY

SLOW MOVING VEHICLE

NO PASSING

BICYCLE CROSSING





MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Two

Applied Instruction: Social Studies
Language Arts

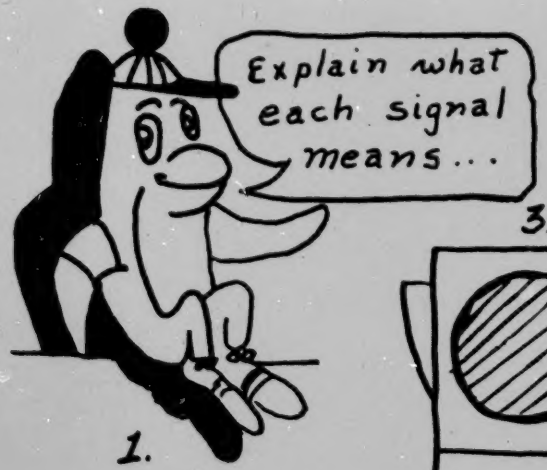
UNIT B. . .BICYCLES AND TRAFFIC

CONCEPT: 3.0 Traffic Control Signals

PERFORMANCE OBJECTIVE: The student will identify the operator responsibilities required by traffic lights.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet: meaning of lights, page 13 **Student Material** Individualized Learning Guide No. 6 **Reinforcement Activity** Instructor constructs a traffic light from illustration, Appendix L.	3.1 Instructor/student discuss the responsibilities of the operator at a traffic light.	3.1 Student states the action required by the traffic lights. Individualized Learning Guide No. 6

NEW WORDS: traffic signal, responsibilities, control



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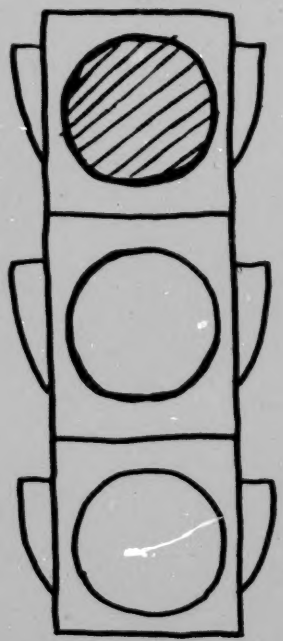
3.



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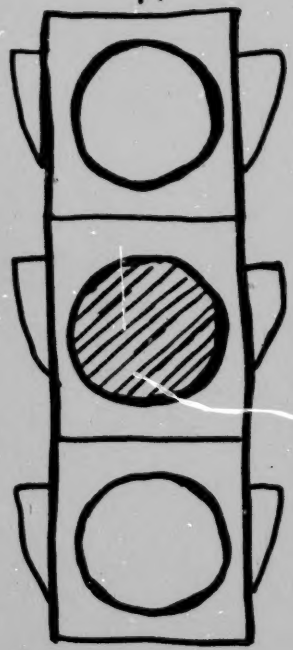

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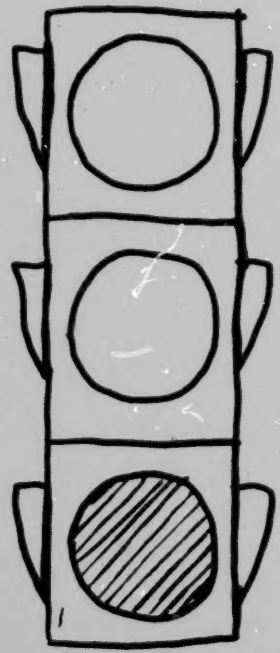

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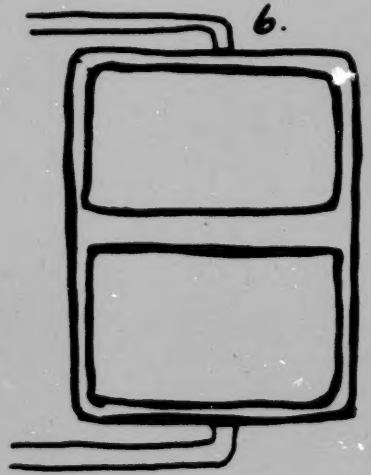

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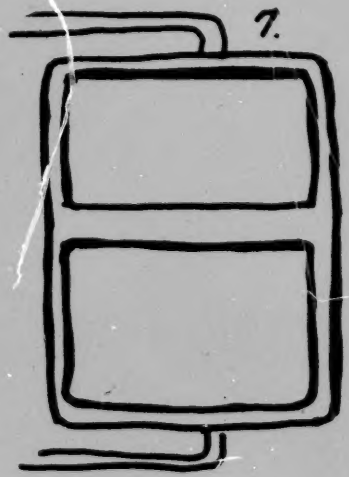

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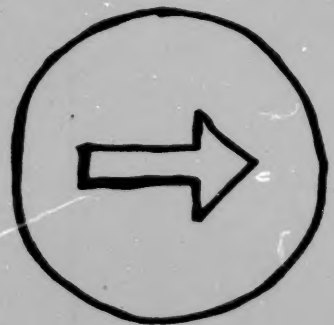

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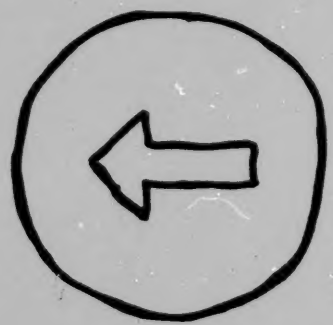

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MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Two

Applied Instruction: Language Arts
Social Studies

UNIT B. . .BICYCLES AND TRAFFIC

CONCEPT: 4.0 Traffic Control Markings

PERFORMANCE OBJECTIVE: The student will recognize lane markings and proper lane placement.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Film: "The Day The Bicycles Disappeared" No. 6616 State Audiovisual Library Information Sheet, page 13	4.1 Instructor discusses reasons for lane marking and lane placement. **Trigger Questions** a. Do your parents drive on the left or right? b. Why should a bicycle stay on the right?	4.1 Student recognizes lane marking and proper bicycle lane placement. Individualized Learning Guide No. 7
	4.2 Instructor discusses vehicle direction and proper positioning.	4.2 Student determines proper positioning and direction of a bicycle.
	4.3 Instructor discusses "drifting" over the center line. **Trigger Question** a. What would happen if you cross the center line?	4.3 Student is aware of the dangers in "drifting" over the center line. Individualized Learning Guide No. 7
Student Material Individualized Learning Guide No. 7	4.4 Instructor discusses causes of overcorrection. a. Sharp turns. b. Inattention.	4.4 Student recognizes causes for overcorrection.
Reinforcement Activity Draw lane markings on the board and explain local area markings.		

NEW WORDS: lane placement, drifting, correction, overcorrection

WHAT DOES THE CENTER LINE MEAN TO A BICYCLIST?

WRITE YOUR ANSWER ON THE LINES BELOW.

1. _____

2. _____

3. _____

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MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Two

Applied Instruction: Physical Education
Social Studies

UNIT B. . .BICYCLES AND TRAFFIC

CONCEPT: 5.0 Bicyclist and Vehicle Signals

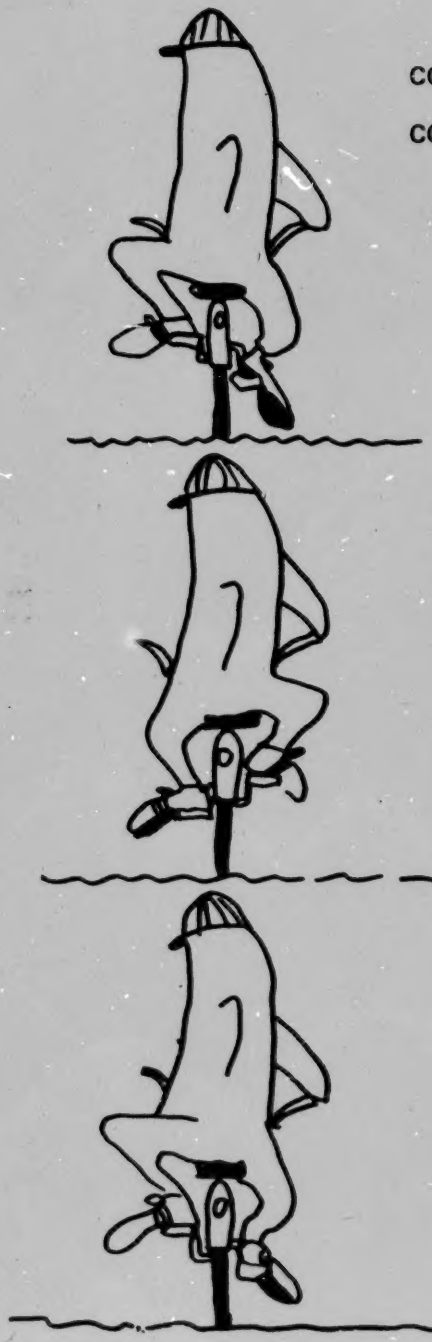
PERFORMANCE OBJECTIVE: The student will know how to signal bike turns.

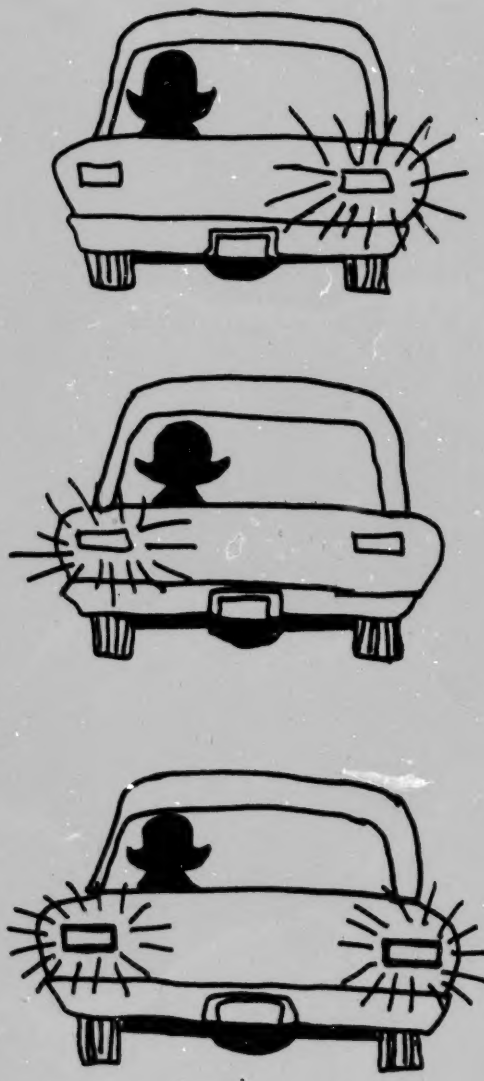
INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 11 **Student Material** Individualized Learning Guide No. 8	5.1 Instructor helps student demonstrate left and right turn signals.	5.1 Student demonstrates knowledge of left and right turn signals. Individualized Learning Guide No. 8

NEW WORD: turn signals

COMPARE BICYCLIST AND VEHICLE SIGNALS.

COLOR THE VEHICLE SIGNALS.





GRADE LEVEL: TWO
UNIT C. . .DECISION MAKING PROCESS
CONCEPT: 1.0 Show-off Recognition
2.0 Visual Limitations
3.0 Weather Condition Hazards
4.0 City Hazard Recognition

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Two

Applied Instruction: Social Studies
Health

UNIT C. . .DECISION MAKING PROCESS

CONCEPT: 1.0 Show-off Recognition

PERFORMANCE OBJECTIVE: The student will identify correct operating habits.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Film: "You and Your Bicycle" No. 2184 State Audiovisual Library	1.1 Instructor encourages students to be alert to actions that lead to becoming a show-off.	1.1 Student lists actions of the show-off.
	1.2 Instructor/students discuss a show-off. **Trigger Questions** a. How does a show-off look to you? b. What danger can a show-off be to you? c. Why does a show-off act the way he does?	1.2 Student understands show-off actions and dangers. Transparency Origional No. 9
	1.3 Instructor/student compare effect of show-off behavior on other people.	1.3 Student verbalizes the effect other people have had through show-off behavior.
Student Material Transparency Original No. 9		
Reinforcement Activity Student dramatize what problems a show-off bicyclist can cause.		

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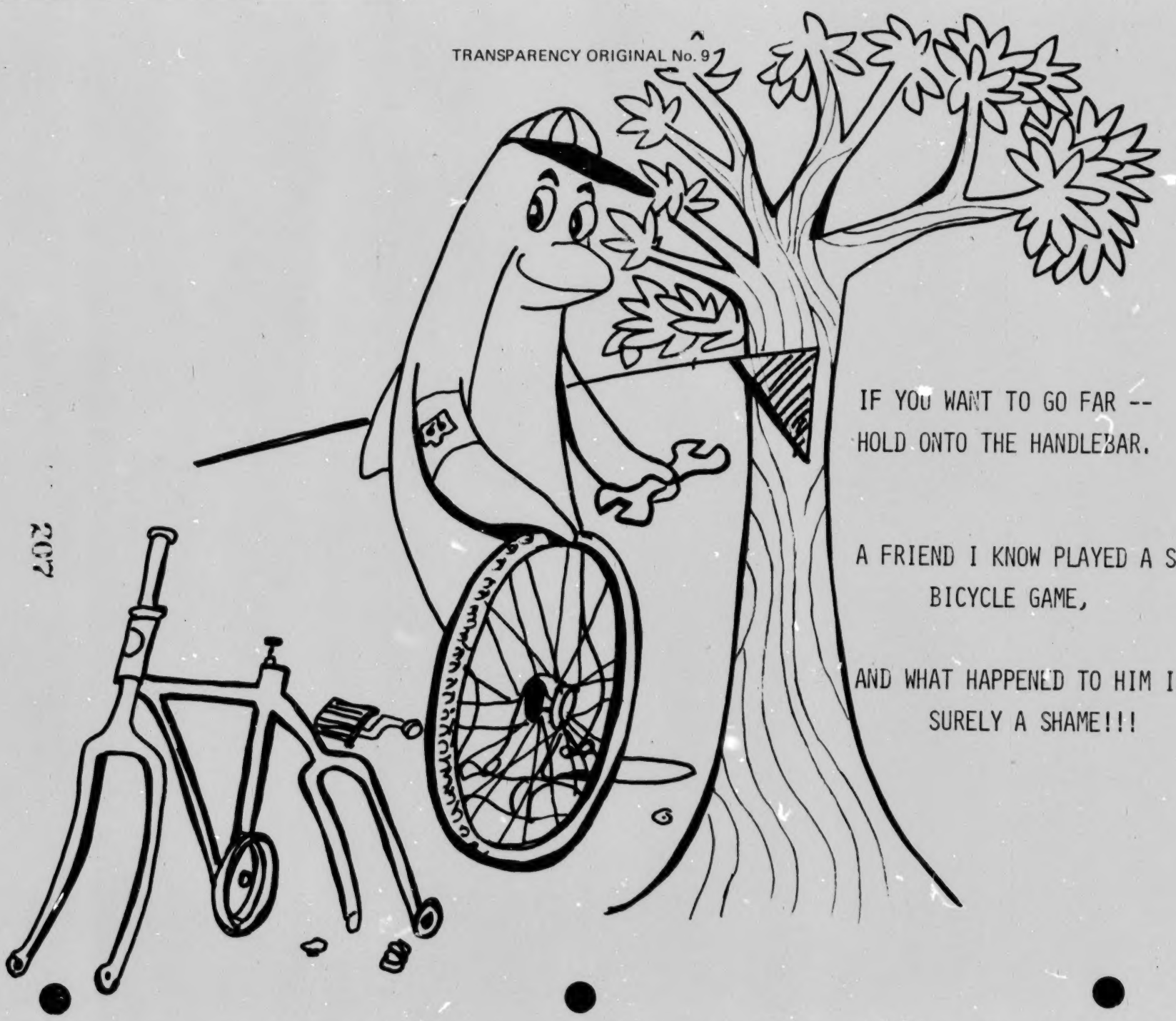
NEW WORDS: list, show-off, proper



IF YOU WANT TO GO FAR --
HOLD ONTO THE HANDLEBAR.

A FRIEND I KNOW PLAYED A SILLY
BICYCLE GAME,

AND WHAT HAPPENED TO HIM IS
SURELY A SHAME!!!

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Two

Applied Instruction: Science

UNIT C. . .DECISION MAKING PROCESS

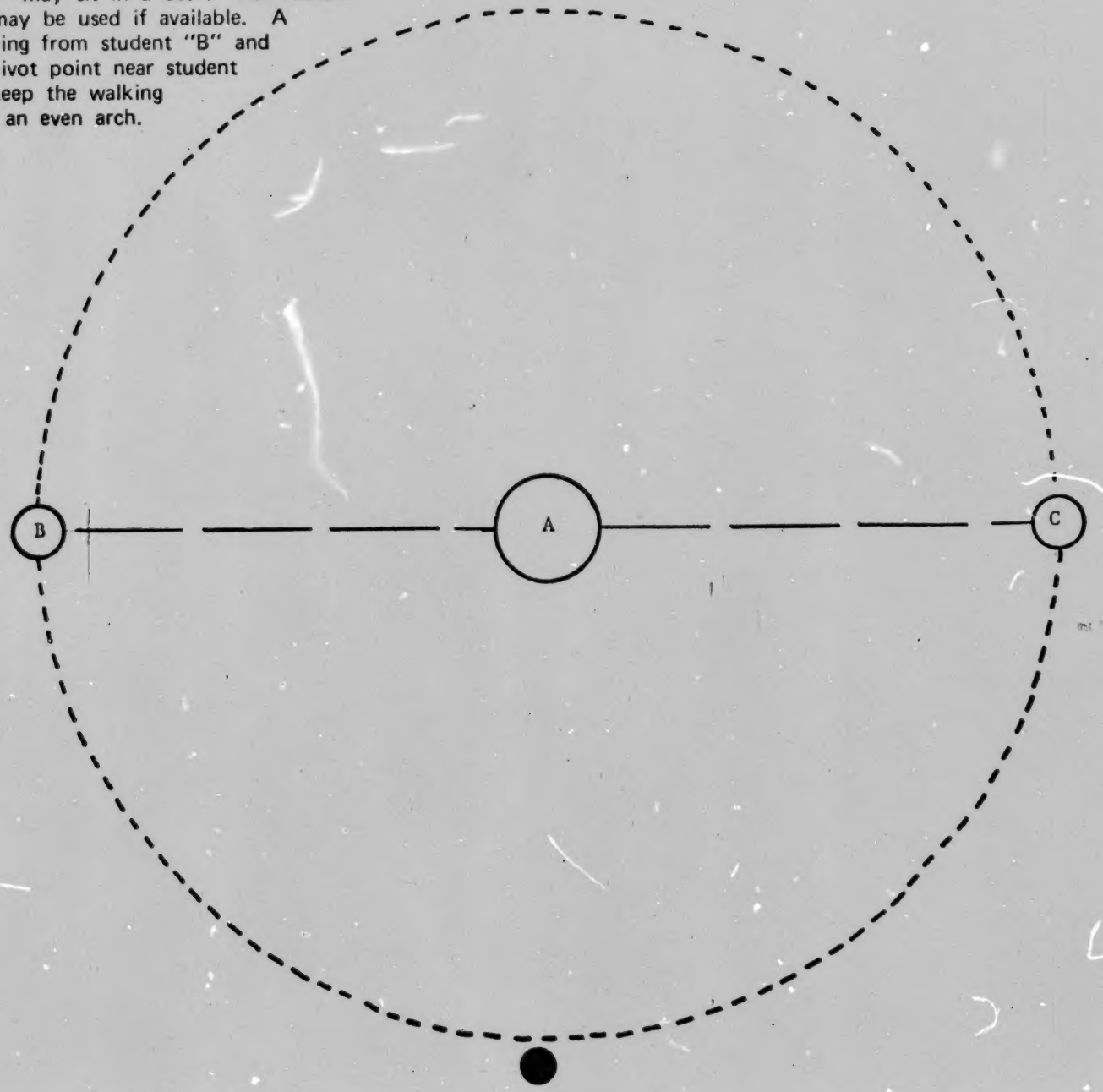
CONCEPT: 2.0 Visual Limitations

PERFORMANCE OBJECTIVE: The student will identify visual limitations.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material **Student Material** **Reinforcement Activity** Students use sun glasses to experience blind spots. Activity page 40	2.1 Instructor develops discussion on visual limitations. **Trigger Questions** a. What is a "blind spot"? b. When you go fast do you see as much to the sides? c. Does riding make your eyes "water"? d. Do you think eye glasses cause blind spots? e. What kinds of eye glasses would cause the worst blind spots? f. Why do farmers put blinders on work horses? g. Have you ever looked down a tunnel?	2.1 Student identifies visual limitations. a. Blind Spots b. Tunnel Vision c. Watery Eyes d. Glasses

NEW WORDS: tunnel vision, visual limitations, blinders

Student "A" may sit in a desk. For realism a toy car may be used if available. A piece of string from student "B" and "C" to a pivot point near student "A", will keep the walking students in an even arch.



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MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Two

Applied Instruction: Science
Health

UNIT C. . .DECISION MAKING PROCESS

CONCEPT: 3.0 Weather Condition Hazards

PERFORMANCE OBJECTIVE: The student will predict weather from weather reports and the effect on bicycle operation, in traffic environment.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material	3.1 Instructor/student discuss what should be done when the following adverse conditions occur: a. rain b. snow c. fog d. wind **Trigger Questions** a. What should you do, as a bicyclist when it rains? snow and etc. b. What do cars do on ice?	3.1 Student determines what should be done if weather conditions change when away from home on a bicycle. Individualized Learning Guide No. 10
Student Material Individualized Learning Guide No. 10 **Reinforcement Activity** Weather forecast interpretation can be helpful for students.	3.2 Instructor/student dicuss the meaning of weather reports **Trigger Questions** a. What kind of weather can we expect when the weather report tells us a low pressure is moving into our area? high pressure?	Student brings weather reports from local newspaper and try to determine the meaning of the report as it affects the operation of a bicycle.

NEW WORDS: high pressure, low pressure, temperature, fronts, air mass, predict, weather, humidity, barometer

RAIN

SNOW

WIND

FOG

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Two

Applied Instruction: Social Studies
Health

UNIT C. . .DECISION MAKING PROCESS

CONCEPT: 4.0 City Hazard Recognition

PERFORMANCE OBJECTIVE: The student will identify city hazards.

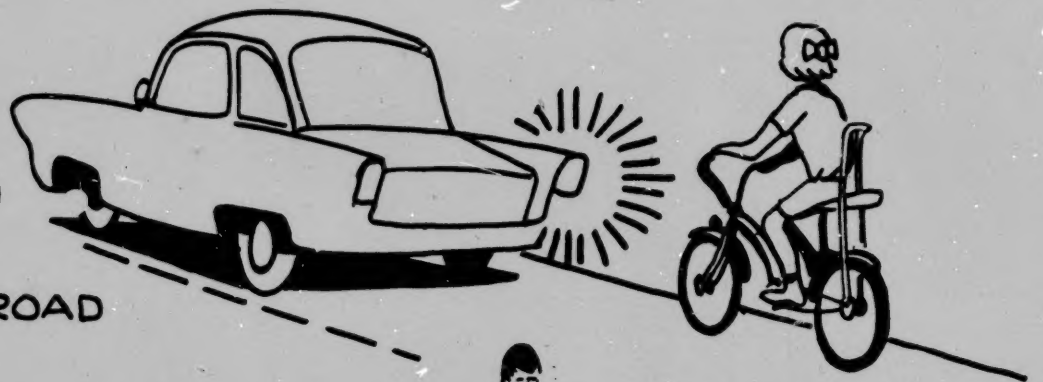
INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 13 Film: "The Day The Bicycle Disappeared" State Audiovisual Library	4.1 Instructor identifies hazards in a city area: a. sidewalks b. pedestrians c. one-way streets d. winding streets e. two-way streets f. multi-lane streets g. parked cars h. alley i. driveways	4.1 Student identifies hazards which occur in operating a bicycle in the city. Individualized Learning Guide No. 11
	4.2 Instructor/student discusses effect of the above listed hazards on bicycle operation.	4.2 Student gives a correct response to city hazards by use of the problem solving method of identify, decide and act.
Student Material Individualized Learning Guide No. 11 Transparency Original No. 12	4.3 Instructor discusses the choice of a route to school to avoid as many hazards as possible.	4.3 Student will design a route he can use to get to school which avoids hazards in the city. He will place an X in places where hazards occur. Transparency Original No. 12
Reinforcement Activity Dramatize how hazards are created.	4.4 Instructor/student discuss what the proper procedure is where a hazard occurs. **Trigger Questions** a. What problems could occur in a parking lot? b. How could a delivery truck be a hazard? c. What is the correct procedure when approaching front or rear of an emergency vehicle?	4.4 Student will learn proper procedure where a hazard occurs.

NEW WORDS: one-way, two -way, multi-lane, alley, hazard, site

1.

TWO-WAY TWO LANE ROAD

2.



DIVIDED FOUR LANE ROAD

3.

PEDESTRIANS

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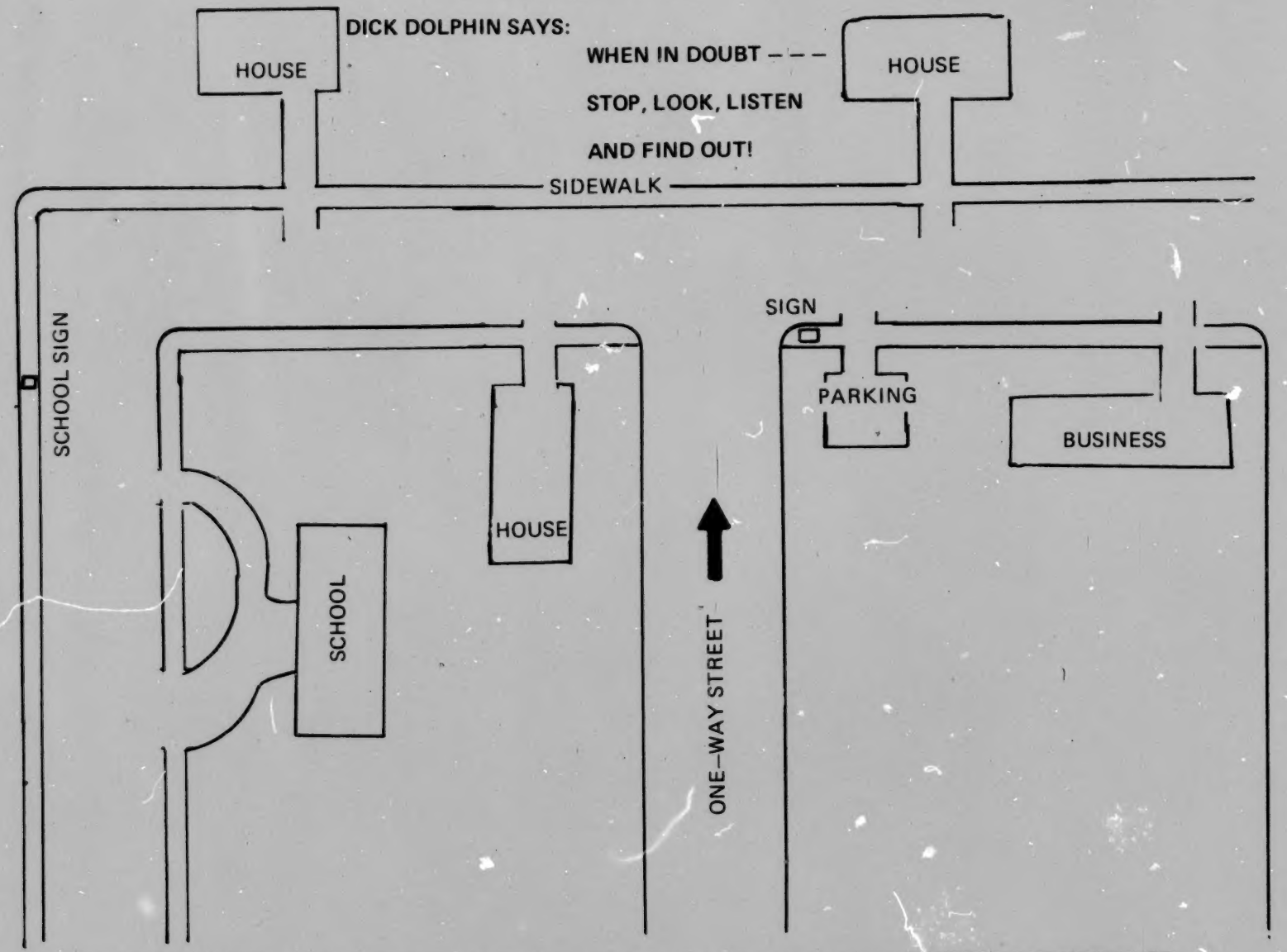
TRANSPARENCY ORIGINAL No. 12



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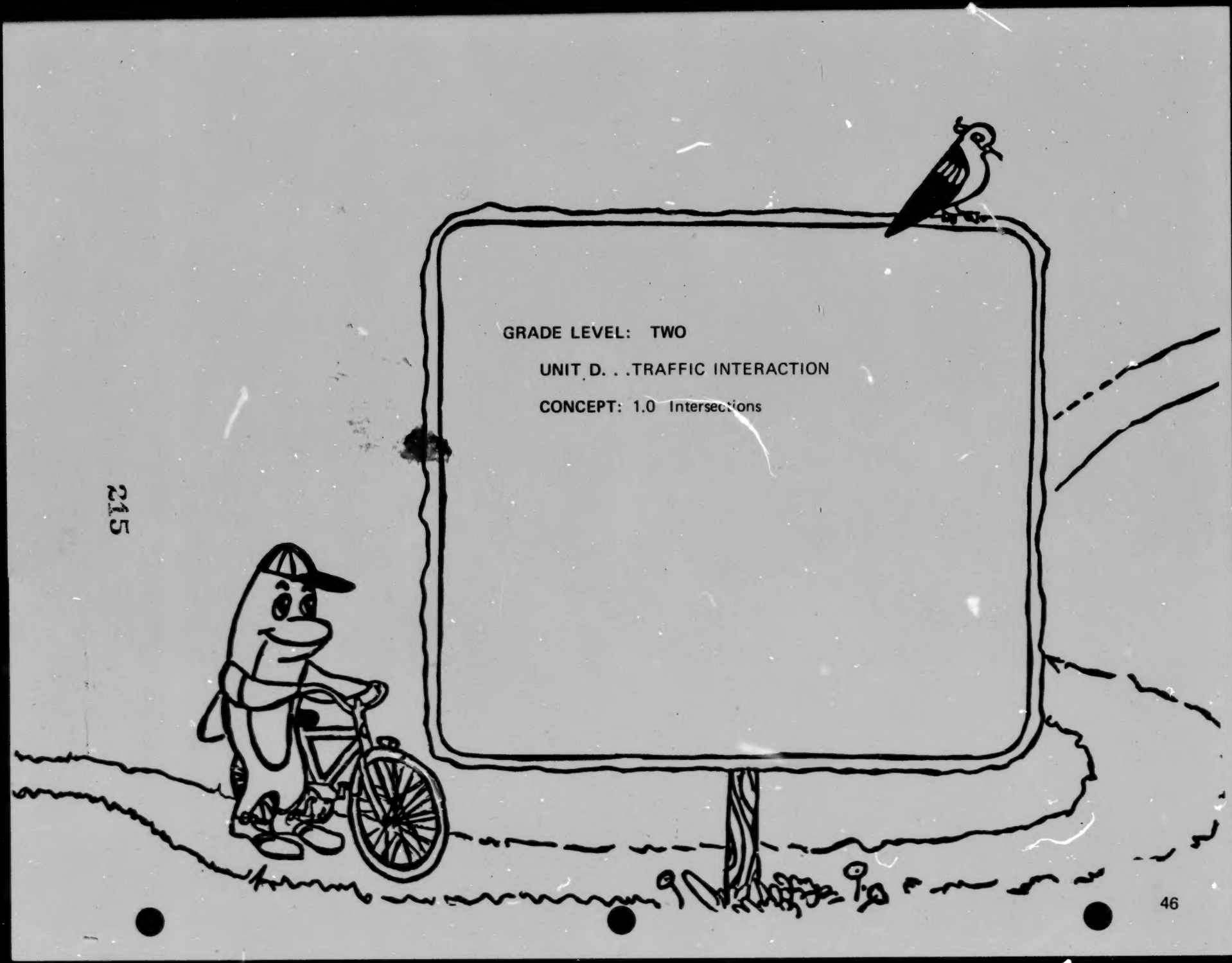
THIS IS AN EXAMPLE OF SCHEMATIC VIEW OF A SCHOOL ROUTE AND POSSIBLE SITUATIONS INVOLVED IN AREAS GOING TO THE SCHOOL.


GRADE LEVEL: TWO
UNIT D. . .TRAFFIC INTERACTION
CONCEPT: 1.0 Intersections

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Two

Applied Instruction: Social Studies

UNIT D. . .TRAFFIC INTERACTION

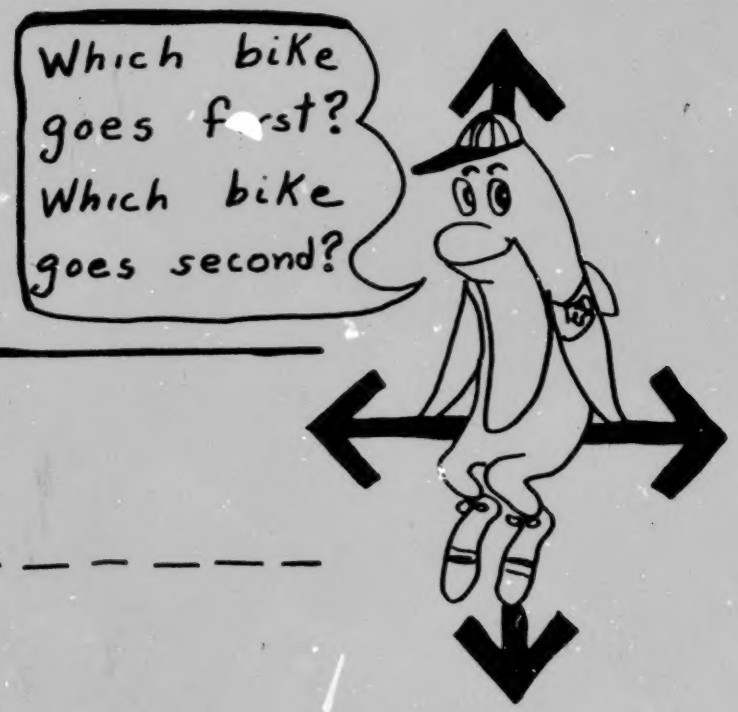
CONCEPT: 1.0 Intersections

PERFORMANCE OBJECTIVE: The student will learn to cross intersections correctly.

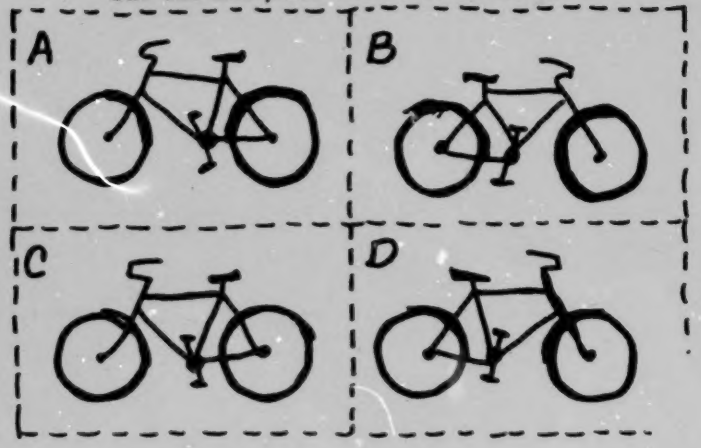
INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Film: "The Day Bicycles Disappeared" No. 6616 State Audiovisual Library Information Sheet, page 14 & 15 **Student Material** Individualized Learning Guide No. 13 & 14 **Reinforcement Activity** Use a flannel board or magnet board patterned after Learning Guide. Appendix A-B	1.1 Instructor discusses and illustrates proper traffic movement in T and cross intersections (controlled and uncontrolled).	1.1 Student identifies and explains T and cross intersections (controlled & uncontrolled) and the proper movement of a bicycle in each situation. Individualized Learning Guide No. 13 & 14

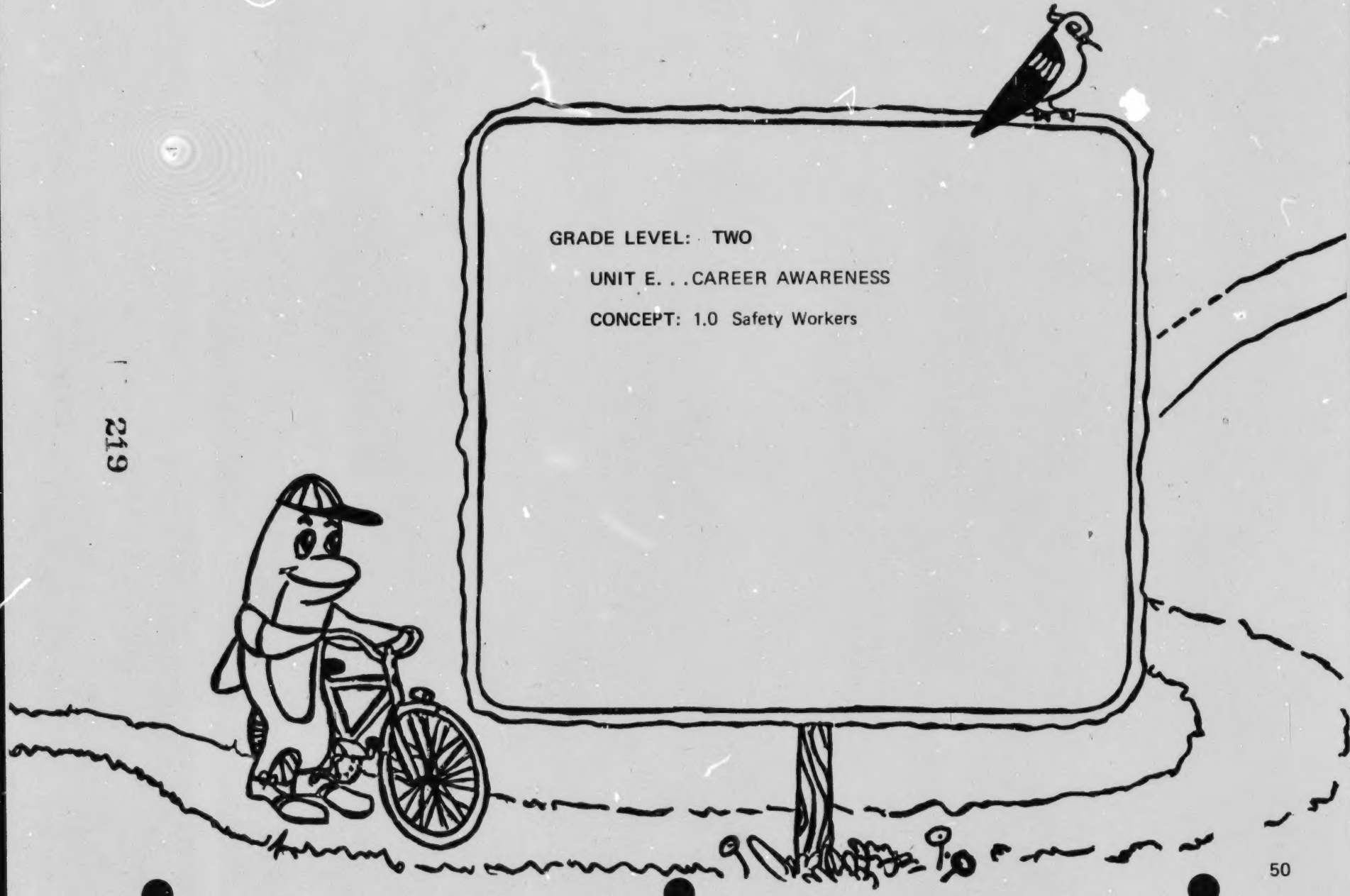
NEW WORDS: T intersection, cross intersection

Can you help me get across this intersection?



Cut out and place into the intersection.




GRADE LEVEL: TWO
UNIT E. . . CAREER AWARENESS
CONCEPT: 1.0 Safety Workers

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Two

Applied Instruction: Social Studies

UNIT E. . .CAREER AWARENESS

CONCEPT: 1.0 Safety Workers

PERFORMANCE OBJECTIVE: The student will become aware of jobs related to bicycling.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: The student should consider himself the most important safety worker.	1.1 Instructor/student discuss job which are directly related to bicycle ownership and operating.	1.1 Student thinks of as many jobs as he can that are involved in ownership and operation of a bicycle. Transparency Original No. 15
	1.2 Instructor lists related jobs to bicycling.	1.2 Student thinks of as many jobs as possible related to bicycling. Transparency Original No. 15
Student Material Transparency Original No. 15		
Reinforcement Activity Page 53		

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TRANSPARENCY ORIGINAL No. 15

CAREER AWARENESS

LEVEL	BICYCLE	RELATED TO BICYCLING
2–3	SALES PERSON	DOCTOR
	BIKE REPAIR	AUTO DRIVERS
	POLICEMAN	SANITATION ENGINEERS
	SCHOOL PATROL	PLAYGROUND SUPERVISOR
	STREET REPAIRMAN	SERVICE STATION ATTENDANT
	MAINTENANCE OF STREETS, SIDEWALKS, AND LIGHTS	PARK AND RECREATION OCCUPATIONS
		PRODUCTION AND DISTRIBUTION

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REINFORCEMENT ACTIVITY

Career Awareness Level 2-3

The following is a list of possible activities which can be introduced to create awareness of occupations integrated into instructional areas:

MATH
1. Prepare shipping invoices involving addition, subtraction, multiplication and division.
2. Work out fuel consumption for miles traveled and cost of other expenses for travel.

SOCIAL STUDIES
1. Discuss the upkeep of roads and restrictions on transportation placed by local, state and federal government.
2. Determine the impact of transportation on a community.

ART
1. Make a mural of different phases of transportation.
2. Paint and display traffic signs.

MUSIC
1. Learn songs of transportation such as "Casey Jones".

SCIENCE & HEALTH
1. Determine how energy is produced and distributed.
2. Discuss how refrigeration transportation has influenced our eating habits.

LANGUAGE ARTS
1. Read stories about early bicycle transportation.
2. Have oral reports about transportation used by the early settlers.

PHYSICAL EDUCATION
1. What are the physical requirements of various types of occupations related to bicycle transportation?

The general plan for an introduction of career related fields is for the observable and familiar careers to be introduced at the early levels of kindergarten and grade one. The directly related careers are mentioned as well as a repetition of the observable and familiar careers in levels two and three.

More complex and indirectly related careers as well as the previously mentioned careers at levels four and five. Naturally the complexity and extent of the traffic and transportation fields are so far reaching that only a few select careers are listed, a complete list would demand a volume. Occasionally an exotic career should be brought to the attention of the student to stimulate thought on the part of the student, and to motivate students to explore the extent of the transportation field.

Grade six explores the way to get a job. Students at grade six often do have some jobs which are involved in transportation to an extent, such as clearing sidewalks, and it should be explored as to how this can become a business like venture.

A perusal by the teacher of a volume of occupational title could be useful to refresh himself with the depth and scope of the traffic and transportation field.

On the left is a list of suggested activities which can be integrated into the curriculum. This list is limited but may be a start to help the teacher develop a vast career awareness in the student.

APPENDICES

TRAFFIC INTERSECTION	A
VEHICLES TO SCALE	B
DICK DOLPHIN FIGURES	C–D
BICYCLIST ARM PATCH	E
TRAFFIC CONTROLS	F–L
SAMPLE ACTIVITIES	M
ROUTE GAME	N
BIKE FESTIVAL	O–S

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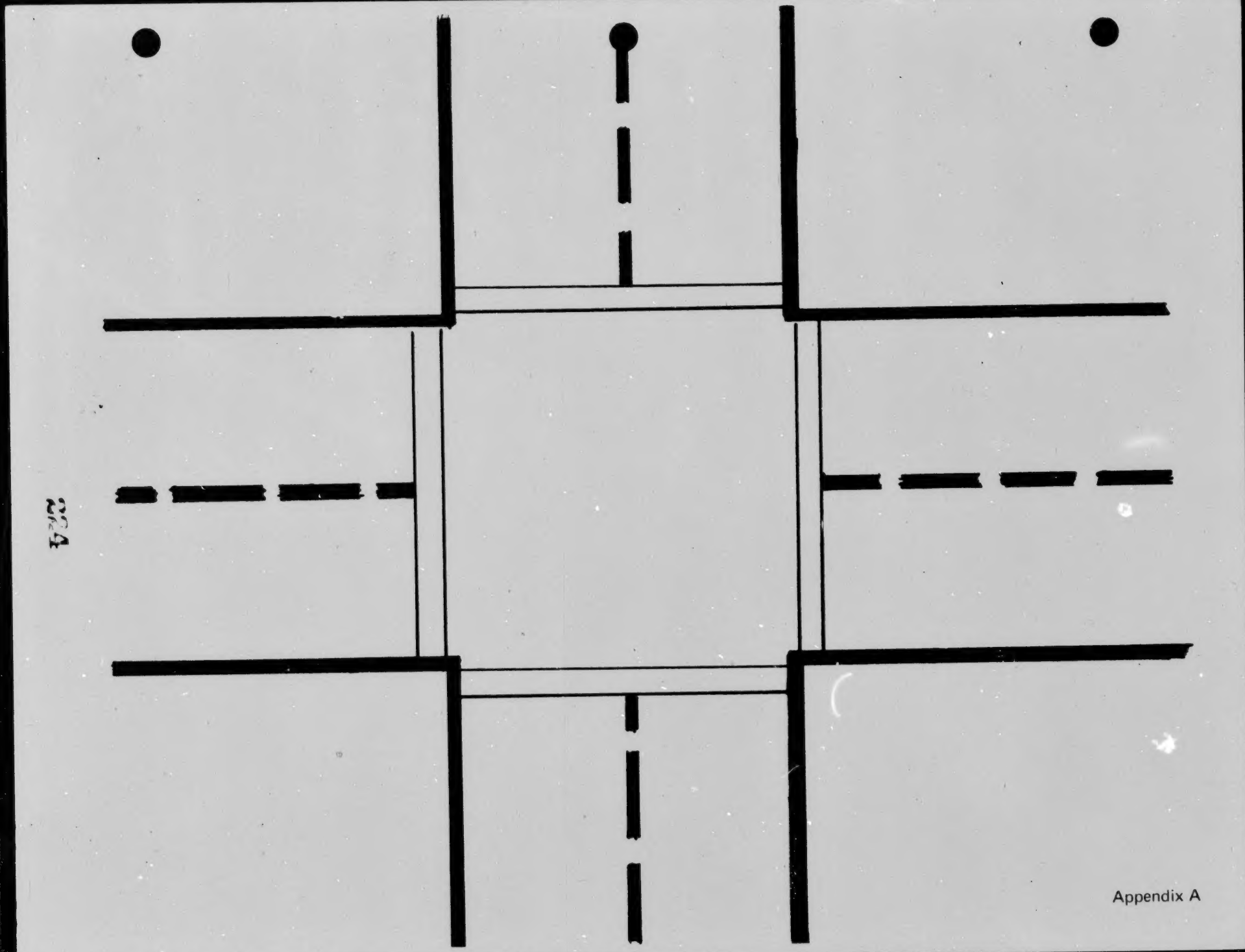

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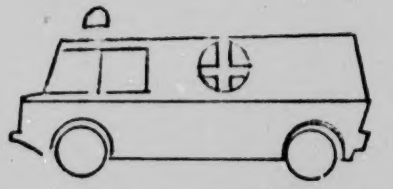

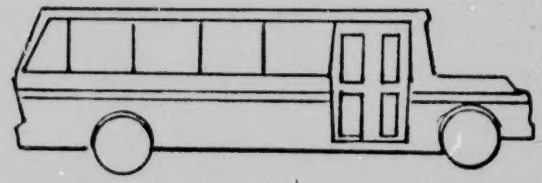

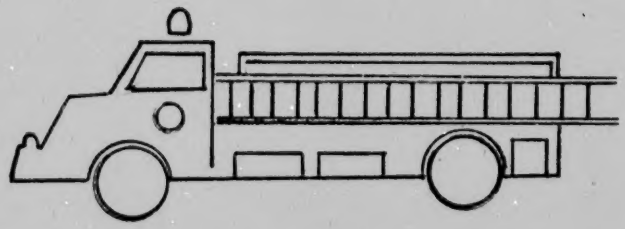

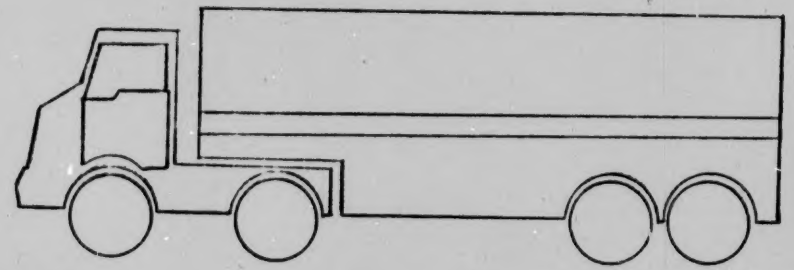

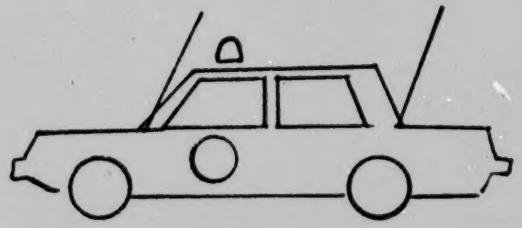

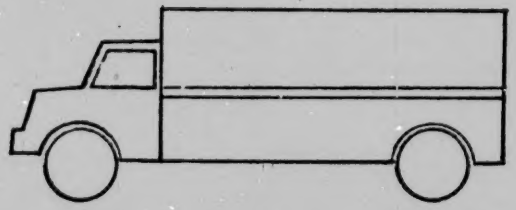

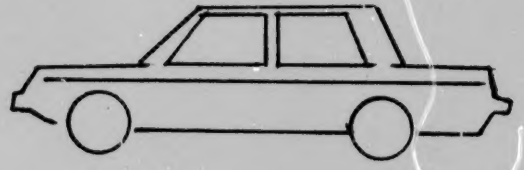

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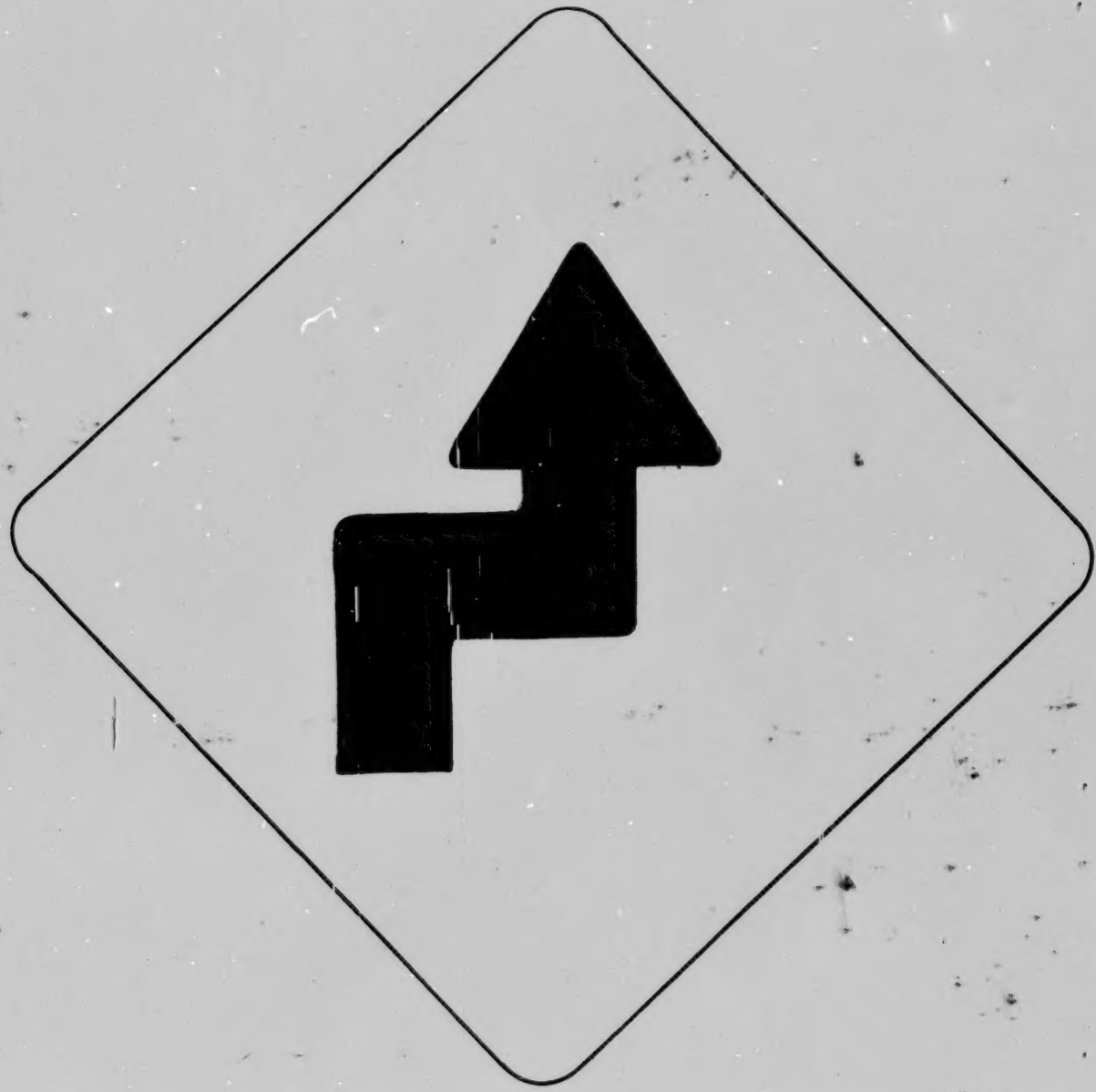
STOP

Appendix G



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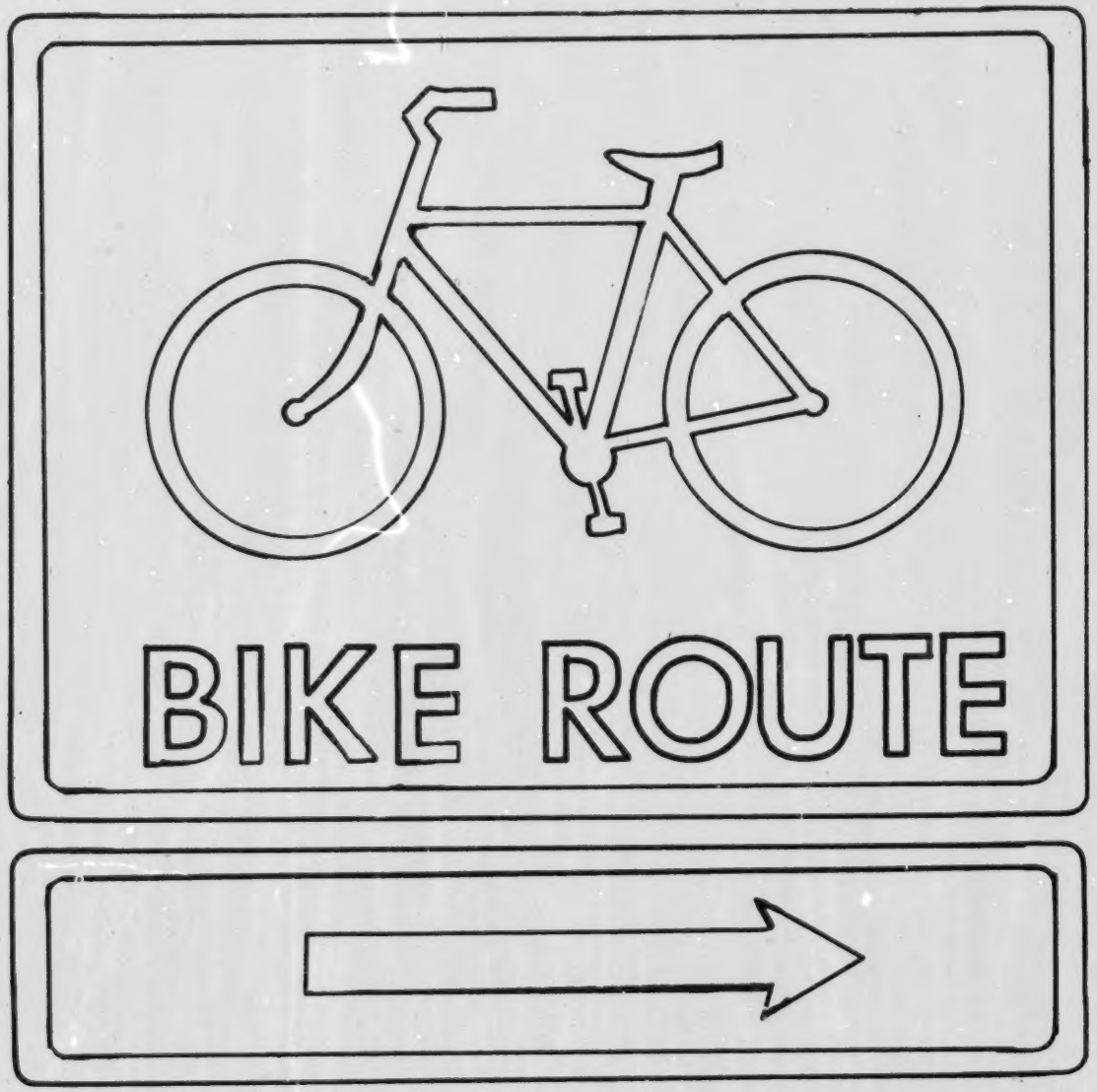
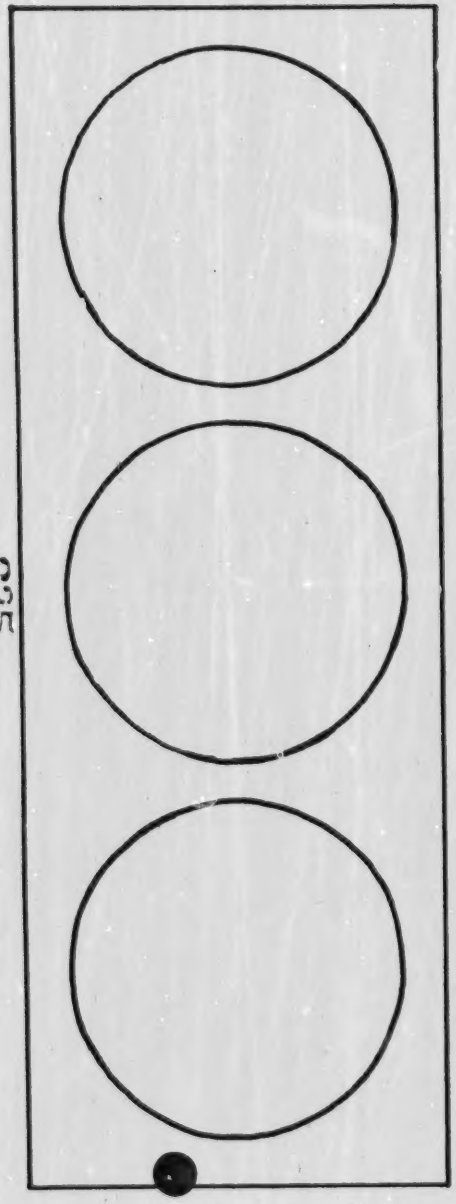


Sign coloring – WHITE: bicycle interior, border line, arrow, letters **BIKE ROUTE**
GREEN: background of bicycle, background or arrow

REINFORCEMENT ACTIVITY

MODEL TRAFFIC LIGHT



Cut three large holes in the side of a half-gallon milk carton. Cover the top hole with *red* cellophane or tissue. Cover the middle hole with *yellow*, and the bottom hole with *green*. Cut a hole in the opposite side of the carton so the cellophane circles can be illuminated from behind with a flashlight. Insert a cardboard mailing tube in the base for a stand. Children can take turns operating the traffic light with a flashlight.

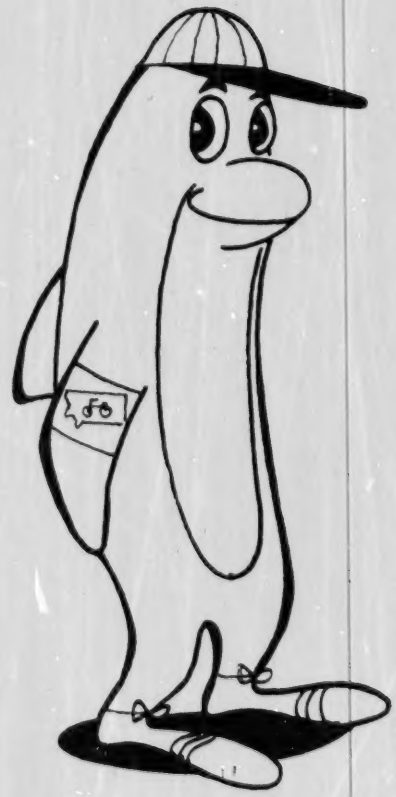
DICK DOLPHIN:

HE IS VERY BRIGHT.

WHEN THE LIGHT TURNS RED -
STOP! HE USES HIS HEAD.

WHEN THE LIGHT TURNS YELLOW -
WAIT! BE A CAREFUL FELLOW.

GREEN LIGHT - LOOK LEFT AND RIGHT
AND BE SURE IT'S CLEAR,
BEFORE YOU CAN CROSS WITHOUT ANY
FEAR.



Ten Little Bikes
(tune: *Ten Little Indians*)
10 little bikes all in a line;
1 fell over—then there were 9.
9 little bikes all in a line;
1 was stolen—then there were 8.
8 little bikes all in a line;
1 got hit—then there were 7.
7 little bikes all in a line;
1 lost a wheel—then there were 6.
6 little bikes all in a line;
1 hit a tree—then there were 5.
5 little bikes all in a line;
1 went through a stop sign—then there were 4.
4 little bikes all in a line;
1 rode double—then there were 3.
3 little bikes all in a line;
1 didn't signal—then there were 2.
2 little bikes all in a line;
I hooked a ride—then there was 1.
1 little bike all well;
Following the safety rules—he'll stay that way.

Poem
When riding a bike,
Look out for those who hike.
Make sure you use your noggin.
Don't be dobbin
Keep moving along, and obey
all bicycle rules,
For you wouldn't want the doctor to
use his tools.
Don't fall down and bump your nose,
Just because you were pedaling
barefoot with your toes.
Always be careful.
Don't be dareful.
Don't ride double with your friend,
Or it may very well be your end.

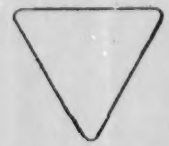
Crossing a busy street
Is not a treat.
You have to look left and right
Until there's not a car in sight.

Know your bicycle rules,
Don't be fools.
Remember them all
And you won't have to make
a doctor's call.

Poem
When Dick Dolphin rides his bright red bike,
He watches for the traffic light.
He stops with red, and goes with green,
For the rushing cars are very mean.
The cars are big; Dick's bike is small.
Dick knows the safety rules—one and all.
Dick wishes you would know them too;
And use them on your way to school.
But not just on your way to school;
ALWAYS use Dick's safety rules.

by *Kara*

Read Aloud Safety Story
One day, Dick Dolphin and his friends went for a ride on their bikes. They looked at the signs by the road. They saw a white sign with a red band like this one.



"What shall we do?" asked Jack. "We must slow down," said Dick. "Then we will look around carefully. If there isn't any car coming we will go on." "Why do we have to slow down?" asked Tom. "So that we will be safe bike riders," said Dick. "The people on that other road have the right-of-way." "What does that mean?" asked Jack. "It means that they do not have to stop for us." said Tom. "Isn't that right, Dick?" "Yes," said Dick. "Now here is another sign. What does it say?"

"I know that one," said Jack. "That means stop." "Why is it red?" asked Tim. "I know." said Bob. "Red means danger. The red sign with the white letters is easy to see, too." "You are right." said Dick Dolphin. "It is time to go home. We will find more safety signs when we go riding tomarrow. Always remember, *Safety First*!"

Fair–Mont–Egan School

WHICH IS THE SAFE PATH ?

START AT THE BOTTOM OF THE PAGE. CHOOSE YOUR PATH CAREFULLY.

'FESTIVAL OF BIKES'

School–Community Activity

A group activity, in which all students participate and the parents are involved, reinforces a student, instructor and community effort. The following is a sample of such an activity to assist you in planning. For each community the conditions, equipment and need will vary and the school should plan according to these considerations.

Leadership
Leadership is the key to success. Community involvement, a strong point in this activity, requires firm but not dictatorial leadership. Planning by the leader will assure the essential consideration of safety for the participants and observers.

Objective
1. Create attitudes which will allow students safe and enjoyable bicycle operation experience.
2. Provide an activity which creates parental awareness of bicycling and what is being taught in the school.
3. Create, by parent and community, awareness of bicycle safety.
4. Provide experiences for problem solving in simulated situations.
5. Prepare skill competencies in bicycle operation in the traffic environment such as balance, control and emergency movement.

Planning
Activities should be divided by age groups, for example, ages 6, 7, and 8 might participate as a group. A caution to the planner; avoid timed activities as opposed to skilled activities. An activity designed to improve skills of students, and being non competative, encourages young people participating to learn and not to show off.

Parents and news media should be informed well in advance of the activities. Perhaps transportaiton on a school bus could be provided. This will also help parents to understand school problems in transportation.

Most students and parents are willing participants in well planned activity spanning about 2½ to 3 hours. A program should be printed and include objectives and appropriate acknowledgements.

Planners should involve community agencies such as law enforcement, service clubs, high school students, bicycle groups, bicycle dealers, senior citizens, et al.

Sample Program:
1:00 P.M. . . . Film Showing
1:30 P.M.M. . . . Bike Inspection
2:15 P.M. . . . Bike Skills Activities
3:00 P.M. . . . Awards
3:15 P.M. . . . Bike Parade

Film – Appropriate film for parents and students chosen by age level. Previewing the film is essential. Suggested films: "Just Like A Car" or "Tripping On Two." Montana Audiovisual Library, Office of the Superintendent of Public Instruction, Helena, MT 59601.

Inspection – An inspection form, a sample of which appears on the following pages, can be obtained from the Montana Highway Patrol Bureau, Helena, MT 59601.

Activities – An outline of activities appears on appendix R. Scoring of the skills must conform to your program objectives. A suggestion is that each of the five parts have a value of 20 points. Points are deducted for errors. Use any or all activities adopting each activity to age group and area.

Awards – Every participant should leave the activity with some recognition that they have participated. Additional prizes or awards for skills could include safety items for bikes such as bike flags, reflectors, bike horn or a T-shirt (see page 7). In some communities service organizations or businesses will contribute such items. A sample award is provided on the last page.

Parade – The first consideration of parade organization is safety. Plan the route and determine how dispersion of participants will take place, keeping in mind community traffic patterns.

Helpful Aids – General outlines of skill activities and helps to a leader planning a group skill activity:

American Automobile Association
1712 G. Street, N.W.
Washington, D.C. 20006
Request single copies of activity material.

Bike Reflector Kits, products and price list available on request
Safety Factors, Inc.
6746 West North Avenue
Chicago, IL 60635

Bike safety items, price list available on request:
American Industries, Inc.
Sarasota, FL 33580

Activities and information of general use, "Expert Bike Driver":
Channing L. Bete Co., Inc.
45 Federal Street
Greenfield, MA 01301
Student booklet price 25 cents each.

Cones, bike triangles, line markers, etc.:
Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, MO 63701
Request catalog.

Reflective tape emblems with Dick Dolphin, request prices and information:
Traffic Control Products, 3M Company
James A. Delaney
109 Riverview 1 West
Great Falls, MT 59401
Request additional information on Bike Safety Kits.

(SAMPLE)

SCORE SHEET

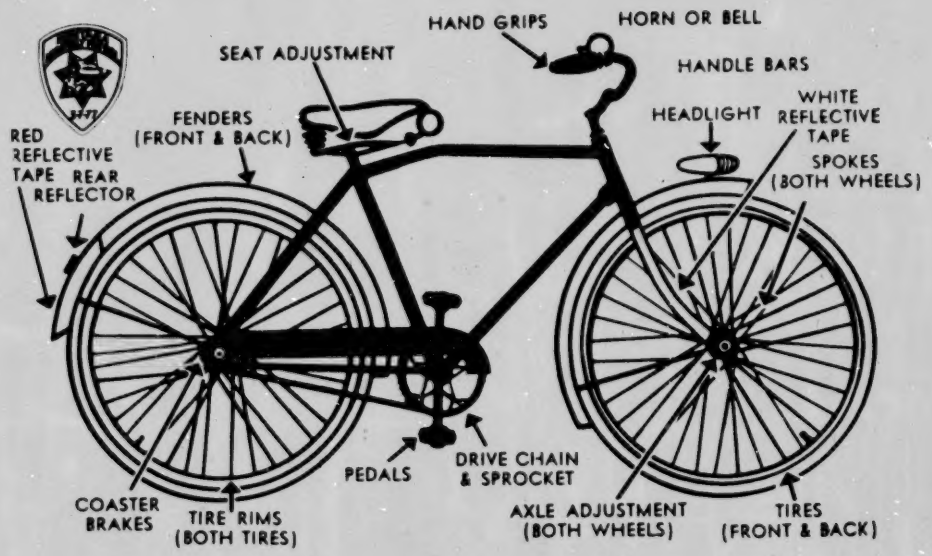
Name _____

ACTIVITY	SCORE	IMPROVEMENT IN
1. Figure Eight		
2. Straight Line		
3. Weaving		
4. Intersection		
5. Evasive		
6. Stopping		
Total		

Score Keeper _____

(SAMPLE)

INSPECTION FORM



Available from:
Montana Highway Patrol Bureau
Helena, MT 59601

BICYCLE SAFETY INSPECTION: The club instructor is to inspect each bike or he may accept a card signed by an authorized bicycle dealer as proof of safe condition.

Name of Bicycle Owner.....

Inspection Made by.....

	Pass	Adjusted	Repairs Needed
HANDLE BARS—Right height, tight. Handlegrips must be tight.			
BRAKES MUST HOLD.			
SADDLE—Should be adjusted so that leg forms straight line when rider sits with heel on pedal at lowest point.			
PEDALS—Should have good treads, lubricated to turn freely.			
WHEELS—Wobble indicates need of wheel cone adjustment or replacement of broken spokes.			
REFLECTOR—Required as essential safety item.			

HEADLIGHT: The club does not insist on a headlight, but the child must understand that it is required by law if riding after dark.

PARENTS: For safe, easy riding keep bikes in good repair. Your authorized bicycle dealer will make this inspection.

(SAMPLE)

Bicycle Skill Activities

Area: Boundries may be determined by using cones, block or lines. The perimeter of the area should be free of hazards and boundry items safe if hit by the participants. Area available and ability of participants will dictate distances.

1. *Figure Eight* – Purpose: balance and change of direction. When operating a bicycle there are frequent instances when the operator must swerve to avoid a pedestrian, a pothole, or an oncoming vehicle.

2. *Straight Line* – Purpose: start and stop without weaving. With a bicycle of proper size a participant can start and stop without weaving. The proper bike pedal position should be checked.

3. *Weaving* – Purpose: change of direction and maneuver. A bike operator becomes aware that he should not look at an obstacle because he steers in the direction he is looking.

4. *Intersection* – Purpose: hand signal check. Correct hand signals used without losing control of the bicycle.

5. *Evasive* – Purpose: evasive maneuver and change of direction in a confined area. A car door opening in the path of a bike operator requires swerving around the obstacle and avoiding oncoming traffic in a confined area.

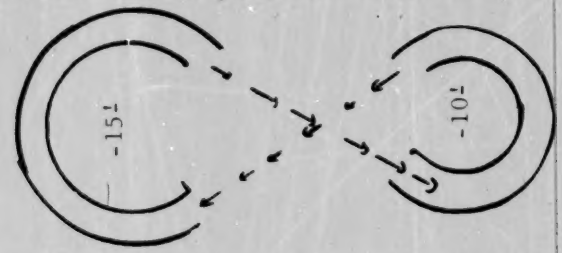
6. *Stopping* – Purpose: stopping ability and stopping distance. Operators of bicycles are often unaware of stopping distance. Balance is important in stopping.

(SAMPLE)

Course Outline

'x' indicates cones or markings which show the course. Adjust distance to the area and group. Mark lanes 4 feet wide.

1.



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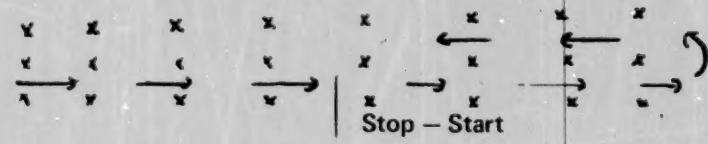

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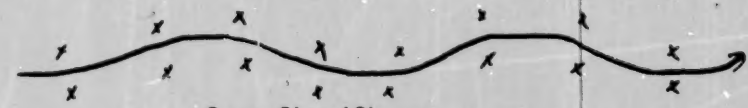

Cones 8' to 10' apart

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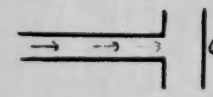
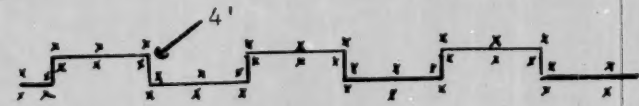


← Person to tell participant to turn left, right, stop or slow.

5.



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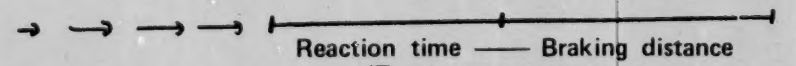


Reaction time —— Braking distance
(Total stopping distance)

SAMPLE
AWARD

BICYCLE SAFETY AWARD

TO _____

For participating in **BICYCLE SAFETY INSTRUCTION.**

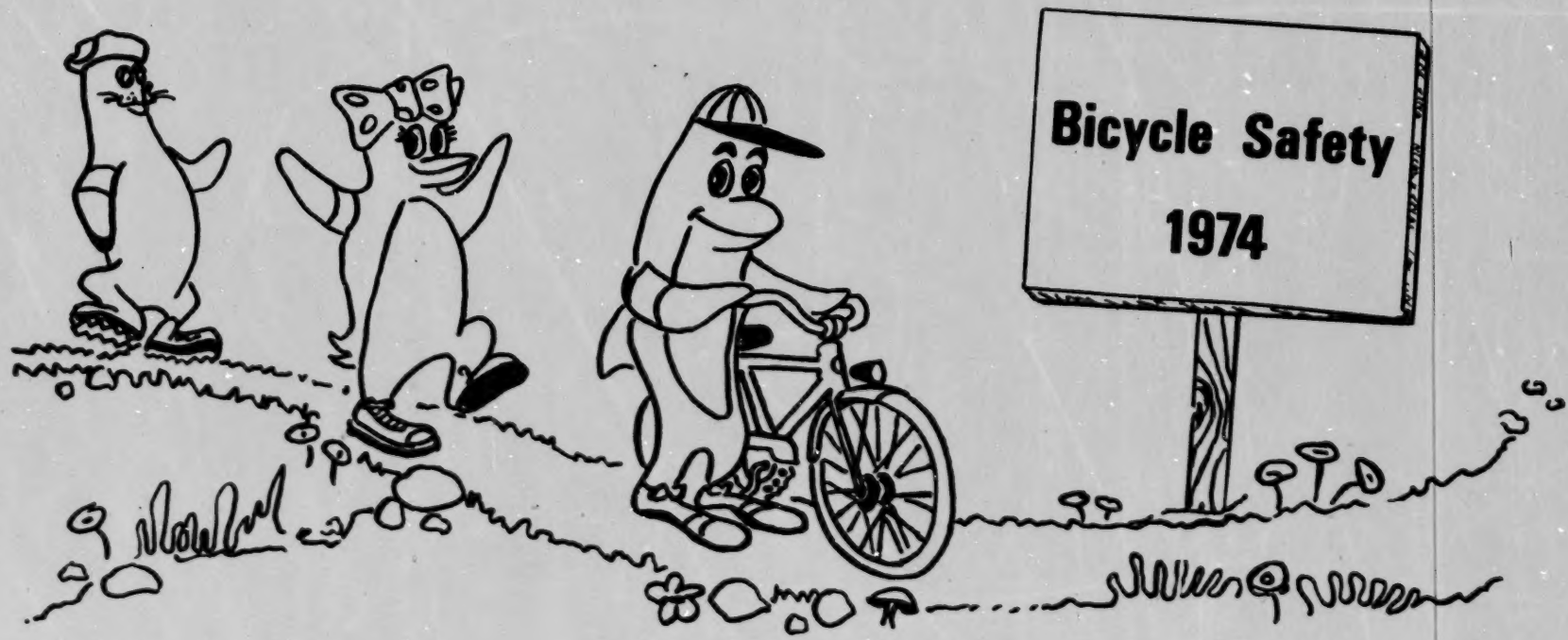
Dated _____

_____ _____

School Superintendent or Principal *Instructor*

Traffic Education for Montana Elementary Schools

3



DOLORES COLBURG, SUPERINTENDENT OF PUBLIC INSTRUCTION, HELENA, MONTANA 59601

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Financed through a grant under the Highway Safety Act of 1966, P.L. 89-564

STATE PUBLISHING CO.–LITHO

PREFACE

This curriculum guide has been developed to assist teachers in an instructional program for elementary school youngsters in traffic education. The guide provides instructional aids and resource materials that are designed to fit smoothly into many areas of existing elementary curricula.

The basic materials in this guide were developed by participants in a July, 1973 workshop sponsored by my office and supported with a grant under the Highway Safety Act of 1966. The participants, who functioned as a task force team, are

Larry Becker
Barbara Bowlen
Don Burman
Marge Carlson
Joel Cobetto
Robert Eva
Gary Ford
Earl Furlong
Dorothea Grow
James Gunlikson
Lowell Hayes
Patricia Heydon
David Jones
Margaret Kavulla
Robert LeMieux
Thomas Loggins
Dan Magstadt
Lynn Mavencamp
Dan McKenty
Mildred McMillion
Harold G. Mogen
Raine Montysals
Roland Newton
Boyd O'Connell
Ed Reichert
Michael Rosbarsky
Minnie Skinner
David Stabio
Jack Sutton
Tally Taylor
William Taylor
R. Keith Thomas
Andrew Veis
Richard West
Jack Witham

Curtis R. Hahn, Traffic Education Supervisor, and Georgia D. Rice, Assistant Traffic Education Supervisor in my office, directed the entire effort in producing this guide. Consultative assistance, particularly for the July, 1973 workshop, was provided by Richard Boyer of Glenview, Illinois. Jerome Rankin did the artwork for the guide.

While this guide was pilot-tested in twelve elementary schools in the state prior to final publication and distribution, we would welcome responses from all who receive the guide as to its usefulness as an instructional and learning tool. Critical review of and comment on this guide can be of assistance to us in future efforts of this office.

DOLORES COLBURG
Superintendent of Public Instruction

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APPENDICES 45

APPLIED INSTRUCTION AREA

To assist the instructor to integrate safety activities into instructional areas, subjects are listed and appropriate pages given below.

Subject Area	*Page Number of Related Traffic Safety Activities*
ART	36
FOREIGN LANGUAGE	18
HEALTH	32, 40
LANGUAGE ARTS (Reading Readiness)	18, 21, 25
PHYSICAL EDUCATION	28, 40, Appendix O–S
MATHEMATICS	21, 25, 28
MUSIC	Appendix M
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SOCIAL STUDIES (Careers)	18, 21, 25, 28, 32, 36, 38, 42

INTRODUCTION

As most of you know, traffic accidents represent one of the greatest threats to human preservation. Individuals are involved in a highly complex traffic environment from birth and remain involved throughout their lifetime as a passenger, pedestrian, bicyclist and motor vehicle operator. Consequently we owe it to our students to provide them the opportunity to learn the knowledges, skills, and attitudes that will allow them to function successfully within the traffic environment.

The education of a student is brought about by effective management of the total learning environment. After perusing the enclosed curricular guidelines, we believe you will discover that management by objective can be successfully applied and because the program is "performance based," learner achievement is promoted.

If we accept human preservation as an appropriate educational goal to manage as a part of the total learning environment, we must help the student develop his dicision making ability. The decision making process should begin early in the development of the student. The performances required in this program are built around decision making and problem solving. To be more specific, the concepts of IDENTIFY, PREDICT, DECIDE and ACT must be encouraged and taught throughout the utilization of this material.

The student must learn to IDENTIFY the problem or situation; PREDICT what might happen; DECIDE what course of action he must take to successfully deal with the situation; and ACT effectively. The IPDA concept has application on a much broader basis than just the traffic environment.

Human preservation cannot be achieved without the help, commitment and involvement of the following:

PARENTS

Nobody quarrels with the axiom that education begins in the home. Utilizing the home as the nearest "grass roots" of a child's learning environment is essential. The more sterile and removed the environment of the classroom, the more doomed to failure learning becomes. Ways to gain the curiosity, healthy interest, and helpful assistance of the parents are integrated in this program. The imagination of the instructor is unlimited when involvement is used to further develop the methods or create new methods.

STUDENTS

This program is based on the principle that students are aware of what tasks are expected of them, that they know what they can expect of their teachers, and that through their efforts, they can achieve success. Students are the gatherers and discoverers of information, not the receivers. Students develop psychomotor skills through practice, not as trainees. Students must become involved in the total task.

SCHOOL

When instructors, the administration, and school board agree on established goals, the compartmentalized school solidifies into a total unit dedicated to teaching the total student. A student who becomes a statistic in accident reports is denied his birthright to an education. Accident reduction in the traffic environment is an easily agreed upon goal.

COMMUNITY

No matter how small or isolated the community, various service, social, religious, and fraternal organizations and agencies are dedicated to the same goal as education. Some of these organizations and agencies have a wealth of experience, materials, and maybe most importantly, time which can be utilized and channeled for the benefit of kids. The prepared, interested and effective teacher makes full use of the community.

STATE

The Office of the Superintendent of Public Instruction Traffic Education Program is especially receptive to your suggestions to improve, polish, and perfect the instructional content of this program. Any evaluation, innovation, successful methodology from you, the instructor, would be helpful. Other agencies are also committed to the education of youth. Some are mentioned in this program.

FEDERAL

The many projects initiated by the federal government, which focus on the youth, should be evidence of a commitment to be of assistance. Often, what seems to be apathy is ignorance of your needs.

LAW ENFORCEMENT AGENCIES

From the highway patrolman to the town marshal to the sheriff – all have a vital concern that a student will be educated with a respect for and understanding of the laws which govern a society. Probably from no other source will the instructor find more cooperative and helpful people. Too often these people have seen the results of ignorance and carelessness in a traffic environment. They have a personal and professional commitment to the same goals as the instructor and this program.

SUMMARY

Students would never learn a new concept if it were not a more advanced endeavor than his previous level of knowledge. The program is created on a "building block" concept and though some concepts are difficult at the grade level assigned, the instructor should be cognizant that the student beginning at K with the kindergarten material will be ready for grade one material. Also it is not a challenge to the learner to repeat a concept which he has already discovered. Challenge your student or you will have discipline problems, frustration, and dull classes.

INVOLVEMENT

CREATES

COMMITMENT .

COMMITMENT

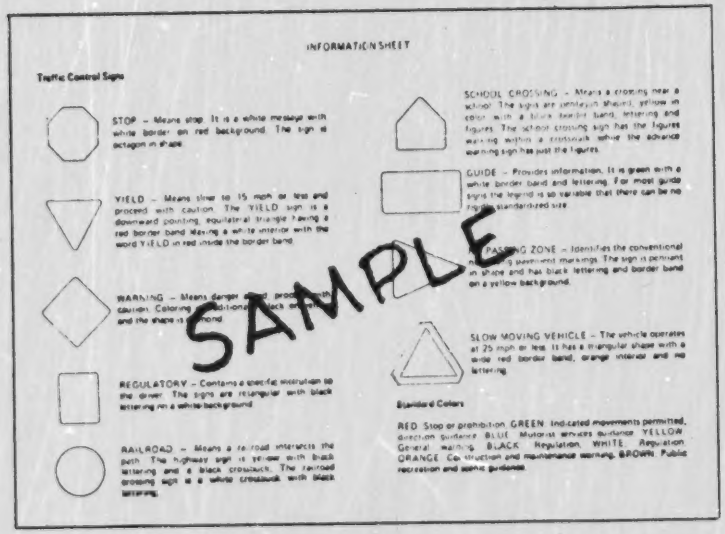
CREATES

SUCCESS.

DESCRIPTION OF FORMAT

The description of format found below is intended to provide the teacher with an overview of the various instructional materials used throughout this curriculum guide. These instructional materials have been color-coded for easier identification and implementation of unit activities. All teaching materials are printed on yellow paper. All appedices are printed on white paper. This curriculum is composed of the following instructional materials: 1. Information Sheets; 2. Format Sheets; 3. Individualized Learning Guide Sheets; 4. Transparency Original Sheets; 5. Reinforcement Activity Sheets; and 6. Appendices.

1. INFORMATION SHEETS: *Information Sheets* are printed on yellow paper and precede all other instructional materials. There are nine short sections to provide the instructor with needed information about bicycles. The *Information Sheets* help to prepare the instructor so that he will have the knowledge to teach and answer questions about bicycles. Before beginning instruction it is recommended that the instructor read all of the *Information Sheets.*



INFORMATION SHEET

Traffic Control Signs

STOP – Means stop. It is a white message with white border on red background. The sign is octagon in shape.

YIELD – Means slow to 15 mph or less and proceed with caution. The YIELD sign is a downward pointing, equilateral triangle having a red border band with a white interior with the word YIELD in red inside the border band.

WARNING – Means danger [illegible] caution. Coloring [illegible] and the shape is diamond.

REGULATORY – Contains a specific instruction to the driver. The signs are rectangular with black lettering on a white background.

RAILROAD – Means a railroad intersects the path. The highway sign is yellow with black lettering and a black crossbuck. The railroad crossing sign is a white crossbuck with black lettering.

SCHOOL CROSSING – Means a crossing near a school. The signs are pentagon shaped, yellow in color with a black border band, lettering and figures. The school crossing sign has the figures walking within a crosswalk while the advance warning sign has just the figures.

GUIDE – Provides information. It is green with a white border band and lettering. For most guide signs the legend is so variable that there can be no [illegible] standardized size.

PASSING ZONE – Identifies the conventional [illegible] pavement markings. The sign is pennant in shape and has black lettering and border band on a yellow background.

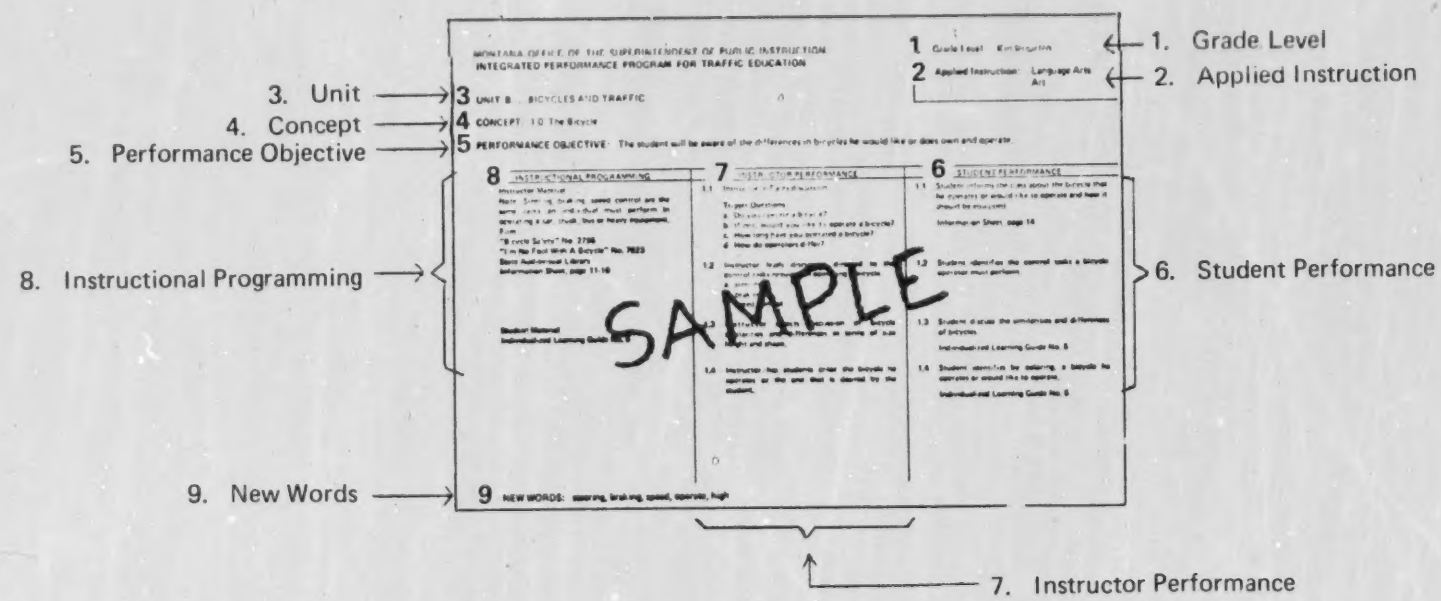
SLOW MOVING VEHICLE – The vehicle operates at 25 mph or less. It has a triangular shape with a wide red border band, orange interior and no lettering.

Standard Colors

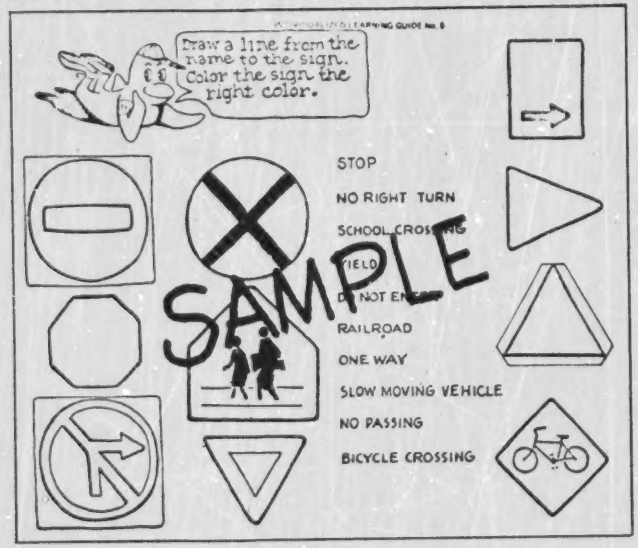
RED Stop or prohibition. GREEN Indicated movements permitted, direction guidance. BLUE Motorist services guidance. YELLOW General warning. BLACK Regulation. WHITE Regulation. ORANGE Construction and maintenance warning. BROWN Public recreation and scenic guidance.

SAMPLE

2. FORMAT SHEETS: *Format Sheets* are printed on yellow paper and provide the instructor with the following information: (1) Grade Level – indicates grade level for which this material is best suited; (2) Applied Instruction – indicates the subject matter in your existing curriculum that most closely applies to the specific concept being taught; (3) Unit – indicates the major topic being covered; (4) Concept – indicates a single idea to be taught; (5) Performance Objective – indicates what it is the student should know, feel, or be able to do at the completion of the instruction; (6) Student Performance Column – identifies what activity the student will be doing in order to learn the *Performance Objective*. Each student activity has a number. the first digit of that number corresponds with the *Concept* number. The second digit indicates which activity it is. This column also indicates which *Individualized Learning Guide Sheets* and *Transparency Original Sheets* are used with a particular student activity; (7) Instructor Performance Column – identifies what it is that the instructor will be doing to assist the student in achieving the *Performance Objective*. The number assigned to a specific instructor performance activity will correspond to an appropriate student performance activity; (8) Instructional Programming Column – lists the various instructional materials that a teacher can use to assist the student in learning the particular objective; (9) New Words – identifies the new safety words that are used with a particular *Concept*. This list is intended to enable the teacher to explain the words or substitute the words for something more appropriate. The new words list is not intended to be a spelling list.



3. INDIVIDUALIZED LEARNING GUIDE SHEETS: *Individualized Learning Guide Sheets* are for use by students. They have been developed specifically to help the student do a particular activity which will allow him to achieve a specified performance objective. *Individualized Learning Guide Sheets* follow the *Format Sheet* that listed it for use as an instructional aid and can be duplicated in quantity.



4. TRANSPARENCY ORIGINAL SHEETS: *Transparency Original Sheets* are designed for reproduction into a transparency that could be used on an overhead projector.

5. REINFORCEMENT ACTIVITY SHEETS: *Reinforcement Activity Sheets* are used to explain ways in which the teacher can enrich or reinforce a learning concept.

6. APPENDICES: *Appendices* can be found at the back of the booklet and are printed on white paper and lettered. The items found in the appendices are an array of instructional materials that could be utilized by the instructor to enhance the learning process.

Armed with this brief description of the format, we hope you will find that you can more easily use these instructional materials. Best wishes to you in your efforts to promote human preservation.

INSTRUCTOR INFORMATION

Objectives
The overall objective of this integrated approach to traffic safety is to provide a tool for instruction of students in the knowledge and skill needed to cope with the traffic environment. This program maintains a positive approach to safety and presents a "way of life," not restrictive rules in a negative approach.

Integrated
Material has been provided to integrate not add to the already existing elementary program. Although multiple activities are provided a selective approach to relevant needs of your student is encouraged.

Time
A time span is not provided because of variation and need of flexibility for the instructor. Note that format sheets do not dictate time span. The integrated approach cannot be truly utilized if a time span is dictated.

Symbols
Symbols have proven to be effective in our society (i.e., by Smokey The Bear and Woodsey Owl). You are encouraged to use the symbols (Dick Dolphin, Bicyclist; Patty Penguin, Passenger; Seemore Seal, Pedestrian) as a means of communication. The choice of symbols was made because these three animal characters are not likely to appear in an adverse situation, such as dead. Expansion is allowable to other areas of safety endeavor such as water safety. Stylization of the characters in simple lines allows a teacher and student to draw the symbols easily. The symbols are creatures which a student is not taught to stay away from and fear. We hope you will enjoy the menagerie.

Commercial Material
Commercial materials are not emphasised since most items span several grade levels. Below are listed some sources which may be helpful aids.

T–shirts can be ordered in the school's colors with one of the three characters, Dick Dolphin, Patty Penguin, Seemore Seal. Character can be printed on the front or back of shirt. The cost for a minimum of 12 is $27.00 and any over 12 is $2.25 each. Order "Traffic Characters" at The Emporium, address:

Wild West Marketing
2 West Main
Bozeman, MT 59715

State size, color and number requested.

Verses and coloring, levels K–2, request free booklets:

"Children's Safety Lessons"
Kemper Insurance
Long Grove, IL 60049

Large pages for coloring about Montana safety, levels K–2, request "Coloring Book":

Montana Highway Patrol Bureau
1014 National Avenue
Helena, MT 59601

Folder "The ABC's of Bike Riding," levels 1–2. For additional folder subjects write:

Imagination, Inc.
1821 University Avenue
St. Paul, MN 55104

Also "10 Little Bike Riders," small folder of verses.

INFORMATION SHEET

Stories and activities in "Traffic Safety Guide For Teachers," inquire at local AAA office or write:

American Automobile Association
Traffic Engineering and Safety Department
1712 G. Street N.W.
Washington, D.C. 20006

Suitable for levels 1–3.

"The Bike Book" has hints to rider and bikes available, levels 2–5, write and refer to stock No.399.91:

National Safety Council
425 North Michigan Avenue
Chicago, IL 60611

Hints and check list for proper care of bike and rules for more advanced bike drivers, levels 3–5, request "Hi! Bike Pilots!":

Safety Department
Allstate Insurance Companies
Allstate Plaza
Northbrook, IL 60062

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Booklet presents compact lesson for bike behavior in cartoon fashion. Write for "Be An Expert Bike Driver," levels 4–6.

Channing L. Bete Co., Inc.
Greenfield, MA 01301

Pamphlet to win the State Farm Safe Bicycling Award, levels 4–6, request at local State Farm Insurance Companies or write:

State Farm Insurance Companies
Bloomington, IL 61701

"Five Keys To Safe Bicycling" from the film "The Bicycle Driver" covers five areas to consider for being good drivers. Levels 5–6, request from:

Safeco Insurance Companies
Safeco Plaza
Seattle, WA 98185

Hints to teacher about activities, explains the why for some of the rules, suggestions for involvement, levels 4–6, inquire at local AAA office or write:

American Automobile Association
Safety Department
1712 G. Street N.W.
Washington, D.C. 20006

Request Traffic Safety Guide for Teachers.

General Map Reading Rules and the "how to" of reading maps. Levels 5–6, request Map Reading and Trip Planning Course, product No. 813, Packet of 35, shipping weight 3 lbs., cost $7.95.

Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, MO 63701

A message to Bike Riders and a safety check list, level 6:

The Texas Safety Association
1623 South Lamar Blvd.
Austin, TX 78704

For Level 6, a Bicycle Safety Information Test and Answer Sheet to be used as an aid to learning, request from:

School and College Department
National Safety Council
425 North Michigan Avenue
Chicago, IL 60611

Highlights for assisting you in the care and operation of your 10 or 5 speed bicycle. Level 6, request Schwinn Care and Operation Check List:

Schwinn Bicycle Co.
1856 North Kostner Avenue
Chicago, IL 60639

General information for all levels available from:

Scott, Foresmen and Company
855 California Avenue
Palo Alto, CA 94394 (large poster with traffic signs and problem solving method);

Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, Mo 63701
(catalog for traffic education);

Kemper Insurance
Long Grove, IL 60049
(booklets);

Texas Safety Association
1623 South Lamar Blvd.
Austin, TX 78704
(general information);

Bicycle Institute of America
122 East 42nd Street
New York, N.Y. 10017
(statistics and information)

Insurance Institute for Highway Safety
1725 DeSales Street, N.W.
Washington, D.C. 20036
(general information).

Ideas

Additional popular ideas, gleaned from pilot schools, include making booklets with the Individualized Learning Guides, displaying posters in the school and in the community, and having upper grade students teach concepts to lower grade levels. Ideas contributed by teachers are incorporated in appropriate sections.

Film Library

Request all film through the Montana Audiovisual Library, Office of the Superintendent of Public Instruction, Helena, MT 59601, by title and number. Read film description and date film developed to assure current and relevant information is used.

Reinforcement Activities

Reinforcement activities to enrich and reinforce concepts are included for your selective use.

Problem Solving Method

A systematic process of identifing, predicting, deciding and acting, when confronted with a potentially dangerous situation, is essential to a student. A student must first identify the hazard, predict what will occur if certain actions are taken or not taken and then by calling on stored memory of past experience or knowledge, correctly decide on an appropriate action. Finally, he must act or react to successfully manage the encounter. These situation occur as a student crosses intersections, rides in the family car or on the school bus. They occur in the school and home environment, on the playground, and when riding bicycles or motor equipment.

Although information is received through all of the senses the greatest percent is preceived through vision. It is therefore essential to teach perception.

Visual perception is identifing, "mental decoding" of the information is predicting and deciding, then appropriate action can be taken.

In the early grade levels predicting is a difficult concept but not impossible. For some students identify, decide and act will provide a short version of the process.

Survival in many situations can depend on a problem solving method and it is the responsibility of the instructor to provide methods to the students. IPDA is a viable method in traffic education as well as in simple decisions.

Helpful aid: "Problem Solving In Everyday Safety"
A 92 transparency program in nine teaching units on Safety Education. Teaches safety consciousness as a frame of mind and mode of behavior. Most important the student is the one who arrives at the solution because he solves the problem himself. Distributed by:

Bumpa-Tel, Inc.,
P.O. Box 611
Cape Girardeau, MO 63701
Cost: $99.95 for complete set.

Montana Motor Vehicle Code "Rules of the Road" that affect bicyclists as of July 1, 1974 are listed below.

32–2184. EFFECT OF REGULATIONS. (a) It is a misdemeanor for any person to do any act forbidden or fail to perform any act required in this article (32–2184 to 32–2190).

(b) These regulations applicable to bicycles shall apply whenever a bicycle is operated upon any highway or upon any path set aside for the exclusive use of bicycles subject to those exceptions stated herein.

32–2185. TRAFFIC LAWS APPLY TO PERSONS RIDING BICYCLES. Every person riding a bicycle upon a roadway shall be granted all of the rights and shall be subject to all of the duties applicable to the driver of a vehicle by this act, except as to special regulations in this article (32–2184 to 32–2190) and except as to those provisions of this act which by their very nature can have no application.

32–2186. RIDING ON BICYCLES. A person propelling a bicycle shall not ride other than upon or astride a permanent and regular seat attached thereto.

32–2187. CLINGING TO VEHICLES. No person riding upon any bicycle, coaster, roller skates, sled, or toy vehicles shall attach the same or himself to any vehicle upon a roadway.

32–2188. RIDING ON ROADWAYS AND BICYCLE PATHS. (a) Every person operating a bicycle upon a roadway shall ride as near to the right side of the roadway as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction.

(b) Persons riding bicyles upon a roadway shall not ride more than two (2) abreast except on paths or parts of roadways set aside for the exclusive use of bicycles.

(c) Whenever a usable path for bicycles has been provided adjacent to a roadway, bicycle riders shall use such path and shall not use the roadway.

32–2189. CARRYING ARTICLES. No person operating a bicycle shall carry any package, bundle, or article which prevents the driver from keeping at least one (1) hand upon the handle bars.

32–2190. LAMPS AND OTHER EQUIPMENT ON BICYCLES. (a) Every bicycle when in use at nighttime shall be equipped with a lamp on the front which shall emit a white light visible from a distance of at least five hundred (500) feet to the front and with a red reflector on the rear of a type approved by the board which shall be visible from all distances from fifty (50) feet to three hundred (300) feet to the rear when directly in front of lawful upper beams of head lamps on a motor vehicle. A lamp emitting a red light visible from a distance of five hundred (500) feet to the rear may be used in addition to the red reflector.

(b) Every bicycle shall be equipped with a brake which will enable the operator to make the braked wheels skid on dry, level, clean pavement.

Be sure to check city ordinances for local laws.

Bicycle Size

For safety, a student's bicycle must be the right size. If the bike is too large or too small, it will be hard to control and will make the rider tired much more quickly.

If the bicycle is too large, it will sway from side to side and the rider can't come to a stop without leaning to one side. If it is too small, the rider will bump his knees and the bike will be difficult to steer.

Also, bicycling is easier and more fun if the leg muscles can be flexed fully. The muscles won't tire as easily as when the muscle doesn't get fully extended.

Measure the distance from the child's crotch to the floor while wearing flat heeled shoes to see what size bike a child needs. If the leg length is between 29½ and 35 inches, a 19" frame is recommended. From 35" to 38", a 23" or 24" frame is recommended. Above 38", an adult's bike (26" or more) can be ridden.

When buying a bike, one should also check for accessories. The reflector should be seen from at least 300 feet. The front light should be white and be visible at least 500 feet away. The horn or bell should be audible at least 100 feet away. There should be a carrier or basket according to needs. There should be a mud guard and a proper chain guard.

Stopping

Bicycles equipped with front wheel caliper brakes, common for high rise bicycles, can be stopped in a shorter distance than bicycle with rear coaster brakes, typical of conventional models. The data available indicates that with caliper brakes, stopping distances increase with rider weight. No such variation is found with coaster brakes. Rear coaster brakes and rear caliper brakes are equally effective in panic stops.

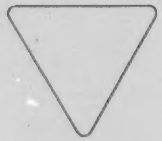
Generally, hard rear wheel braking is much more easily handled by the experienced driver than front wheel braking.

When the operator stands upright on the pedals, hard front wheel braking can lead to forward pitch-over of the rider. When this occurs, the motion is so rapid that there is little that the unsuspecting rider, even a very experienced one, can do to avoid a bad fall. Findings show that as long as the rider remains seated, on either type of bicycle, a potentially injurious pitch-over could not be induced with either bicycle. On dry, level asphalt, the test rider was able to make both bicycles pitch-over by standing on the pedals and applying hard front wheel braking. On a polished concrete surface, only the high rise bicycle could be made to pitch-over.

The bicycle must have a brake that takes hold quickly and makes the rear wheel skid on a dry, clean, level pavement. The arm of the coaster brake must be firmly attached to the frame; otherwise, braking power is lost. The brake pads on bicycles should be inspected weekly for wear and proper positioning. Brake cables should be checked for wear, fraying, and binding. Caliper brakes lose their efficiency when wet. Extreme caution must be exercised when riding in wet weather or in areas where heavy dew or puddles might wet the pads and rims.

Traffic Control Signs

STOP – Means stop. It is a white message with white border on red background. The sign is octagon in shape.



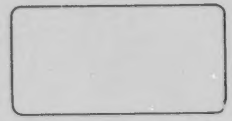
YIELD – Means slow to 15 mph or less and proceed with caution. The YIELD sign is a downward pointing, equilateral triangle having a red border band leaving a white interior with the word YIELD in red inside the border band.

WARNING – Means danger ahead, proceed with caution. Coloring is traditionally black on yellow and the shape is diamond.

REGULATORY – Contains a specific instrution to the driver. The signs are rectangular with black lettering on a white background.

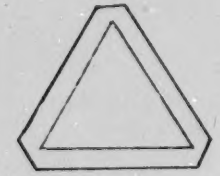
RAILROAD – Means a railroad intersects the path. The highway sign is yellow with black lettering and a black crossbuck. The railroad crossing sign is a white crossbuck with black lettering.

SCHOOL CROSSING – Means a crossing near a school. The signs are pentagon shaped, yellow in color with a black border band, lettering and figures. The school crossing sign has the figures walking within a crosswalk while the advance warning sign has just the figures.



GUIDE – Provides information. It is green with a white border band and lettering. For most guide signs the legend is so variable that there can be no rigidly standardized size.

NO PASSING ZONE – Identifies the conventional no passing pavement markings. The sign is pennant in shape and has black lettering and border band on a yellow background.



SLOW MOVING VEHICLE – The vehicle operates at 25 mph or less. It has a triangular shape with a wide red border band, orange interior and no lettering.

Standard Colors

RED: Stop or prohibition. GREEN: Indicated movements permitted, direction guidance. BLUE: Motorist services guidance. YELLOW: General warning. BLACK: Regulation. WHITE: Regulation. ORANGE: Construction and maintenance warning. BROWN: Public recreation and scenic guidance.

Traffic Control Signals

Each traffic signal has a specific meaning for the bicycle operator.

GREEN LIGHT – indicates that the bicyclist may proceed if the way is clear.

RED LIGHT – indicates that the bicyclist is to stop.

YELLOW LIGHT – is a caution light indicating that the bicyclist is not to proceed through the intersection until the light turns green, unless already in or very near to the intersection when the light turned yellow.

GREEN ARROW – indicates that the bicyclist may proceed cautiously in the direction that the arrow is pointing.

FLASHING RED LIGHT – indicates that the bicyclist is to come to a complete stop and then proceed if the way is clear.

FLASHING YELLOW LIGHT – indicates that the bicyclist is to reduce his speed and then proceed with caution.

Traffic Control Markings

Markings have definite and important functions to perform in a proper scheme of traffic control. In some cases, they are used to supplement the regulations or warnings of other devices such as traffic signs and signals.

Pavement markings have definite limitations. They are obliterated by snow, may not be clearly visible when wet, and may not be very durable when subjected to heavy traffic.

Longitudinal pavement marking color use is as follows: Yellow lines delineate the seperation of traffic flows in opposing direction or mark the left boundary of the travel path at locations of particular hazard. White lines delineate the seperation of traffic flows in the same direction. Red markings delineate roadways that shall not be entered or used by the viewer of those markings.

Broken lines are permissive as opposed to solid lines being restrictive in character. Width of lines indicates the degree of emphasis. Double lines indicate maximum restrictions.

Curbs painted red or yellow indicate no parking.

Horizontial pavement markings serve as a guide for pedestrians. At non-intersectional locations, these markings legally establish the crosswalk. Horizontal line may also indicate a stop line to the bicyclist.

Other markings may indicate a railroad crossing, directional arrows and word markings.

Hand Signals

The use of hand signals now is commonly accepted as a safe riding practice. The motor vehicle laws of Montana require such signals. Signaling intention to turn, slow down, or stop gives the motorist behind, as well as the one approaching, an opportunity to anticipate the cyclist's movement. The bicycle operator should signal well in advance so that both hands are on the handlebars when the maneuver is made. This is especially important when the bicycle is equipped with hand brakes. Since all signals are made with the left hand, it is important that the control for the rear brake is located on the right handlebar. It is a simple matter to switch the brake control if necessary. Unless local regulations differ, standard hand signals are as follows: Left turn–hand and arm extended horizontally; Right turn–hand and arm extended upward; Stop and/or slow–hand and arm extended downward.

In order to turn left at intersections in the business area or where there is heavy or high-speed vehicular traffic, a bicyclist should dismount and follow the pedestrian crosswalk to the far right corner, then proceed across at right angles. In this way, he crosses one direction of traffic at a time. He should avoid heavily traveled routes if others are available. If riding on the sidewalk is allowed by ordinance, or if the driver is too young to be allowed in traffic, care should be taken when riding on the sidewalk to avoid striking or alarming pedestrians.

Skills

It is imperative that the cyclist develop skill in balancing and pedaling to avoid swerving into traffic, running off the edge of a sidewalk or highway, and to avoid hitting a pedestrian or fixed object at a narrow passing. Parents have a responsibility to be sure the child has the skill to cope with traffic before permitting him to drive on the street. Learners should be taught to coast with the pedals level (horizontal) in readiness to apply the brakes, and to avoid scraping the lower pedal on turns.

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When overtaking slow moving vehicles, a cyclist must be careful to avoid being struck or crowded by vehicles about to turn into a driveway or alley. The cyclist must be especially alert, when passing parked cars, for doors which might be opened in his path.

Parked cars with someone in the driver's seat should be given as wide a berth as possible. A cyclist should never ride into the roadway from the yard, driveway or alley without looking carefully in all directions.

It is highly desirable to remain inside the car during an automobile collision. Not so with a bicycle. The rider has to free himself from the bicycle immediately when a collision appears imminent. Design features that can be impacted by the rider or hinder his ability to free himself, such as high rise handlebars and gear-shift levers, should be avoided. The horizontal frame member in front of the rider on all boys' bicycles tends to make it more difficult for the rider to free himself from the bike. Therefore, learners and novice riders should use girls' style bicycles since they are easier to dismount in case of a collision.

Carrying more passengers than the bicycle is designed and equipped for is dangerous. Passengers obstruct the driver's vision, make balancing difficult, and increase the danger of getting part of the body or clothing caught in the spokes. Two on a bicycle also greatly increases the stopping distance. The "polo" or "banana" seat on the high rise bicycle appears to be designed to carry two; however, such is not the case.

All human activity involves a degree of risk. What becomes important then is instilling in student a personal and social attitude toward their choices of action in traffic interaction. For this reason, at every age, the students are encouraged to consider the consequencies.

The primary consideration becomes how much risk a person is ready to accept in his life style.

Intersections

CONTROLLED – (a) If more than one vehicle operator arrives at a four-way stop at the same time, give the driver on the right the right-of-way, but only after they have come to a full stop. Courtesy dictates which driver proceeds.

(b) If only one of the crossroads has a stop sign, the driver in that lane must stop, then yield to all other vehicles and pedestrians.

(c) If there is a red light or stop sign, the bicyclist should stop behind the white line or marked or unmarked crosswalk.

UNCONTROLLED – (a) When two bicyclists arrive at an uncontrolled intersection at about the same time, the bicyclist on the left must yield the right-of-way to the driver on the right.

(b) The bicyclist should never enter the intersection until it is safe to enter.

(c) The bicyclist should yield the right-of-way to pedestrians that are in the crosswalk.

(d) The bicyclist should never make a turn in front of a moving vehicle.

Facts

For the five years, 1965-69, only one year,1967, shows an even division between urban and rural areas for bicycle-motorcar fatalities; for the other four years, somewhat more than half occurred in rural areas (defined as having less than 2,500 inhabitants, except those areas classified "urban" by the U.S. Census Bureau).

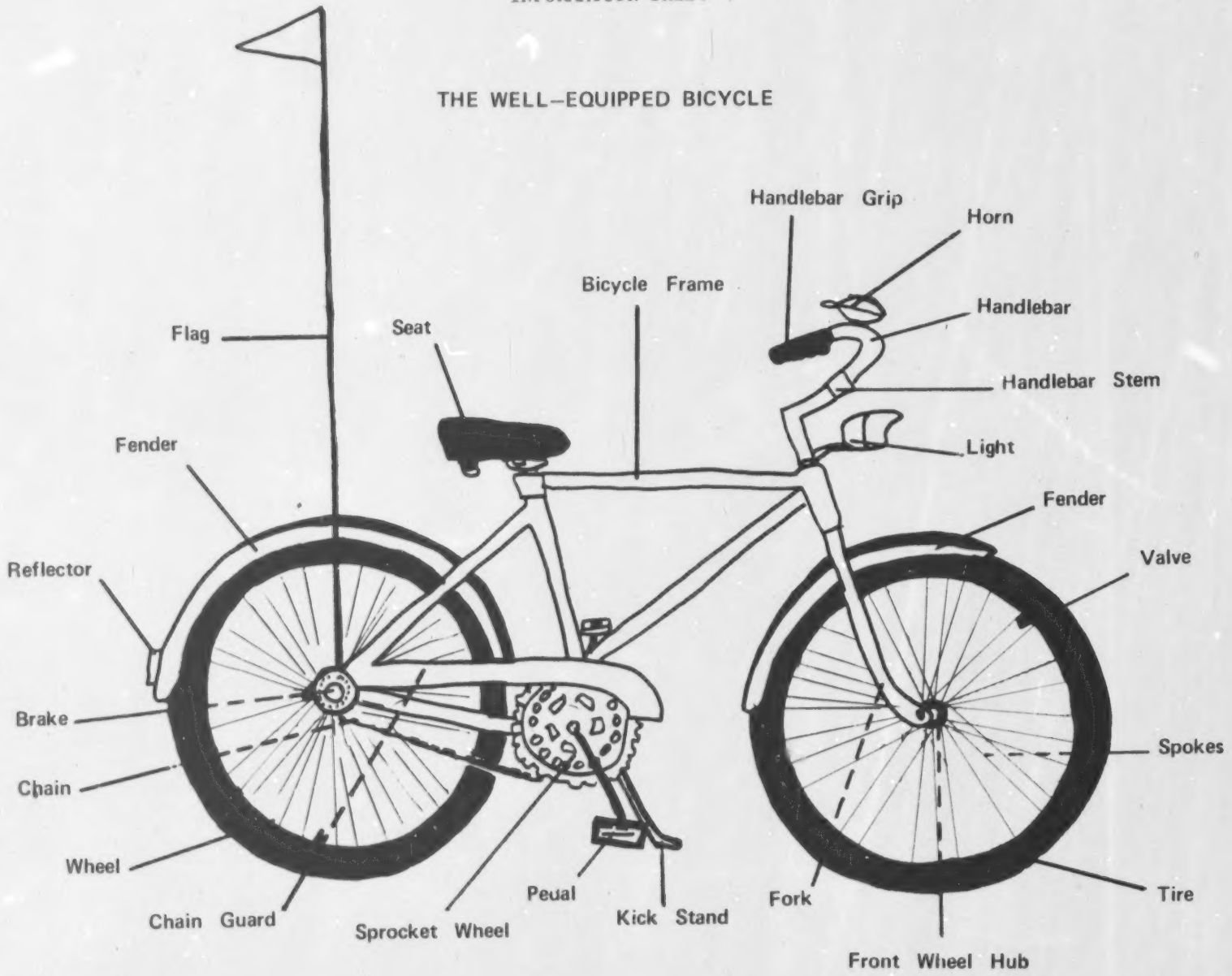
Nonfatal accidents are more likely to occur in residential areas (city streets), while fatal accidents are most likely to occur in open country (major and minor roads). This is probably related to the higher speeds of motorcars outside the city or town. Compared with all fatal motor vehicle accidents, fatal bicycle accidents show a larger proportion occurring where there is some kind of intersection of vehicle pathways. This is also true of nonfatal accidents.

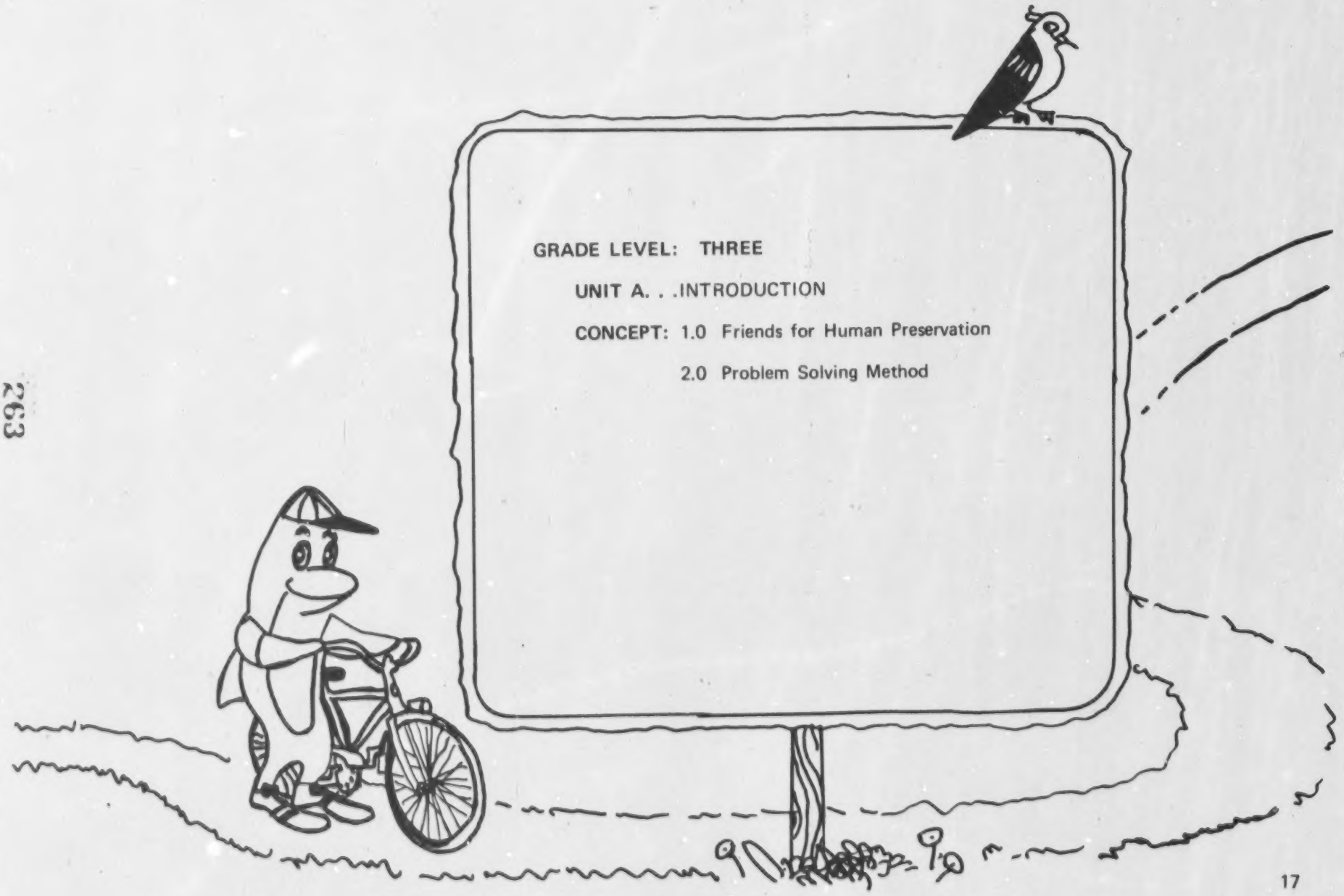
One study found 96% of all bicycle-motorcar collisions occurred within one mile from home, and 57% within one block; also, intersections of some kind were the most frequent site of collisions: ". . . 82% of collisions relate to maneuvers by the bicyclist to enter into, to turn across, or cross through a flow of traffic."

In two studies, about 40% of the cyclists of grade-school age, said they ride on the right side of the street, 40–50% said they ride on both sides, and 10–15% said they ride on the left side. Some ride on the sidewalk. Apparently, there is some confusion, lack of knowledge, or disregard with respect to rules and regulation of safe operating procedures.

*Bicycle fatalities will exceed 10,000 in 1974.
*Ninety-percent of bicyclist fatalities due to bicycle-car collisions are males.
*In a study of 275 collisions with cars, 93% involved male bicylcists.
*In a 5 year study, over 60% of the bicycle-car fatalities and 75% of the injuries were in the age group of five through fourteen.
*After school and early evening hours are the peak periods for collisions.
*In a great number of bicycle-car collisions, the driver of the car is not cited for a violation.
*Twenty-percent of the bicycle collisions with cars involved a passenger or a hand-held load.
*It has been pointed out, many bicyclists were not riding their own bicycle.

THE WELL–EQUIPPED BICYCLE





GRADE LEVEL: THREE

UNIT A. . .INTRODUCTION

CONCEPT: 1.0 Friends for Human Preservation

2.0 Problem Solving Method

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Three

Applied Instruction: Language Arts
Social Studies
Foreign Language

UNIT A. . .INTRODUCTION

CONCEPT: 1.0 Friends for Human Preservation

PERFORMANCE OBJECTIVE: The student will become familiar with the friends for human preservation.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 7 **Student Material** Individualized Learning Guide No. 1 Transparency Original No. 2 **Reinforcement Activity** Students ask their parents if they know a foreign language and help them learn how to say the introduction to the Friends of Human Preservation in that language. Appendix C-D, Dick Dolphin	1.1 Instructor/student discuss the friends for human preservation and their role in traffic with emphasis on Dick Dolphin, bicyclist. **Trigger Questions** a. What is a friend? b. What do you do for a friend? c. How can you and your new friends help each other? d. Who else is your friend in traffic? (policeman)	1.1 Student recognizes the friends for human preservation and is able to identify Dick Dolphin, bicyclist and his role as a new friend. Individualized Learning Guide No. 1 Transparency Original No. 2

NEW WORDS: preservation, introduce, passenger, bicyclist, pedestrian, favorite, habit

OTE TO INSTRUCTOR: THE TRANSLATION SHOWN IS SPANISH–YOU ARE ENCOURAGED TO USE ANY OTHER LANGUAGE TRANSLATIONS.

HOLA. . .

NOSOTROS SOMOS LOS AMIGOS DE LA PRESERVACION HUMANA.

LLEGAREMOS A SER SUS AMIGOS ESPECIALES,

Y ASI DEBEMOS INTRODUCIRNOS.

HELLO. . .

WE ARE THE FRIENDS OF HUMAN PRESERVATION.

WE WILL BECOME YOUR SPECIAL FRIENDS,

SO LET US INTRODUCE OURSELVES. . .

YO SOY PATRICIA PINGUINO.
SOY LA PASAJERA.
VIAJO CONTIGO.

I AM PATTY PENGUIN.
I AM THE PASSENGER.
I RIDE WITH YOU.

YO SOY RICARDO DELFIN.
SOY BICICLISTA.
ANDO EN BICICLETA.

I AM DICK DOLPHIN.
I AM A BICYCLIST.
I OPERATE A BICYCLE.

YO SOY VERMAS FOCA.
SOY UN PEATÓN.
ANDO CONTIGO.

I AM SEEMORE SEAL.
I AM A PEDESTRIAN.
I WALK WITH YOU.

I AM DICK DOLPHIN. I WILL BE YOUR SYMBOL FOR BICYCLING. I WILL HELP YOU RIDE BETTER AND EVEN PUT A BICYCLE TOGETHER.

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MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Three

Applied Instruction: Language Arts
Math
Social Studies

UNIT A. . .INTRODUCTION

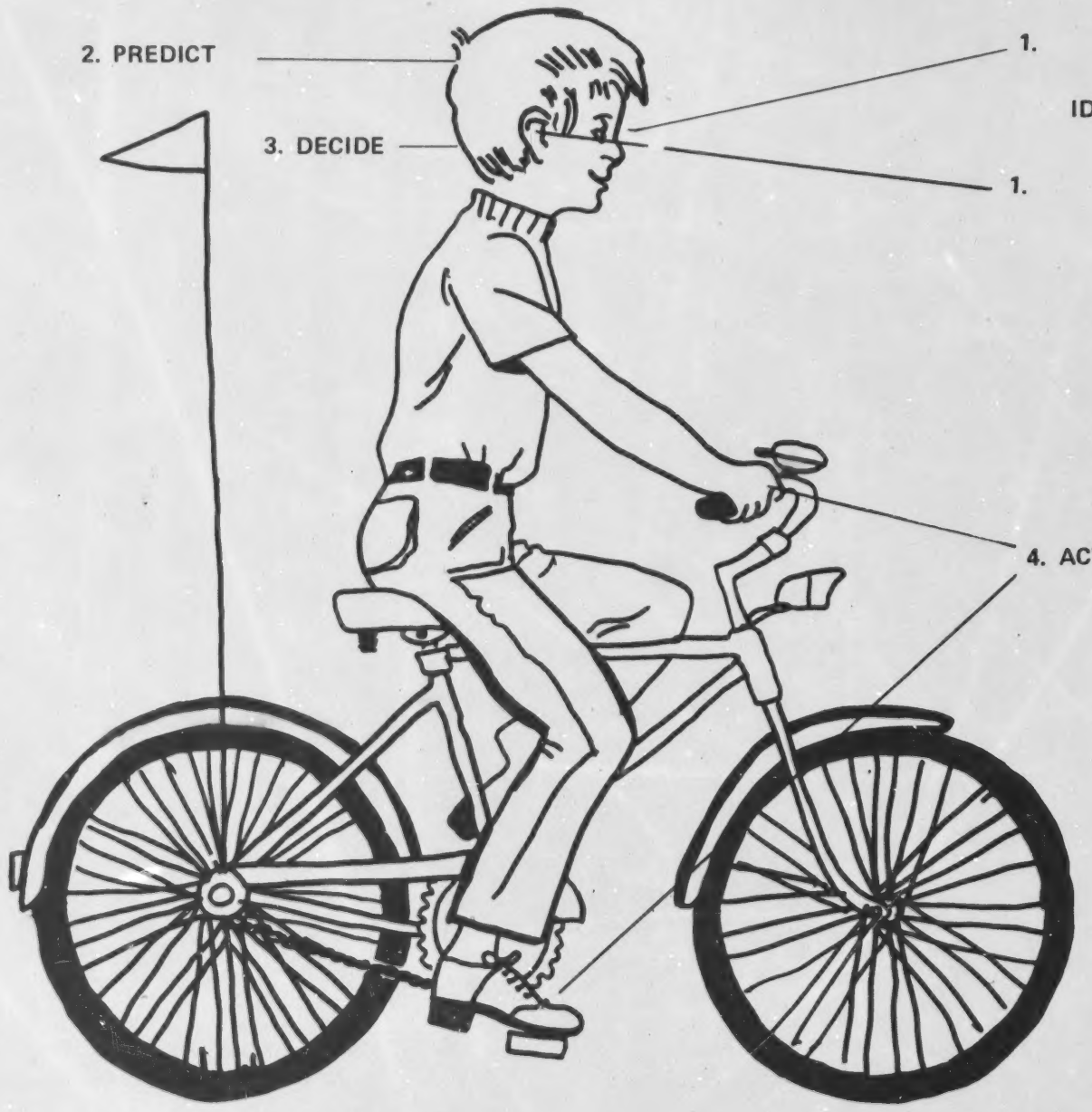
CONCEPT: 2.0 Problem Solving Method

PERFORMANCE OBJECTIVE: The student will learn to use the identify, predict, decide and act problem solving method.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Materials Note: The basic system for every action is to: IDENTIFY the hazards. PREDICT what can happen. DECIDE what to do. ACT. This system will be used to make students aware of a logical system for problem solving. Information Sheet, page 9 **Student Material** Transparency Original No. 3 Individualized Learning Guide No. 4 **Reinforcement Activity** Problem solving situations illustrated on the blackboard using IPDA problem solving method.	1.1 Instructor/student discuss the use of IDENTIFY, PREDICT, DECIDE AND ACT problem solving method and use examples of situations in which the system can be implemented, such as: a. railroad crossing b. intersections c. pedestrian cross walks e. passing vehicles Students should arrive at the concept that IPDA is utilized continuously while operating a bicycle.	1.1 Student will learn to use IDENTIFY, PREDICT, DECIDE AND ACT problem solving method. Transparency Original No. 3 Individualized Learning Guide No. 4

NEW WORD: situation

TRANSPARENCY ORIGINAL No. 3



SOLVE A WORD PROBLEM:

YOU WANT TO EARN MONEY FOR A NEW BICYCLE. YOU EARNED $12.50 THE FIRST WEEK, $8.25 THE SECOND, $10.50 THE THIRD, AND $8.25 THE FOURTH. WHAT IS THE AVERAGE AMOUNT YOU EARNED IN A WEEK?

IDENTIFY THE PROBLEM: WHAT IS THE AVERAGE AMOUNT EARNED PER WEEK IN THE FOUR WEEKS?

PREDICT THE SOLUTION: MENTALLY ADD 12 + 8 + 10 + 8 TO DETERMINE APPROXIMATE TOTAL AND DIVIDE 38 BY 4.

DECIDE WHAT TO DO: ADD THE EARNINGS AND DIVIDE BY FOUR WEEKS.

ACT DO: WITH A PENCIL AND SCRATCH PAPER DO THE PROBLEM AND DETERMINE IF YOU HAVE ENOUGH MONEY FOR THE BIKE.

HOW CAN THIS PROBLEM SOLVING METHOD BE USED IN TRAFFIC SITUATIONS?

1. YOU ARE WALKING TO THE BUS, WHICH IS ACROSS THE STREET, A CAR IS APPROACHING, HIS DIRECTIONAL SIGNALS TELL YOU HE IS GOING TO TURN RIGHT WHIC IS IN FRONT OF YOU. YOU.....

2. THE THIRD–GRADE CLASSES AT THE JEFFERSON SCHOOL WENT ON A FIELD TRIP. THERE WERE 58 BOYS AND 70 GIRLS ALTOGETHER. THEY WENT IN FOUR BUSES. WHAT IS THE AVERAGE NUMBER OF CHILDREN IN A BUS?

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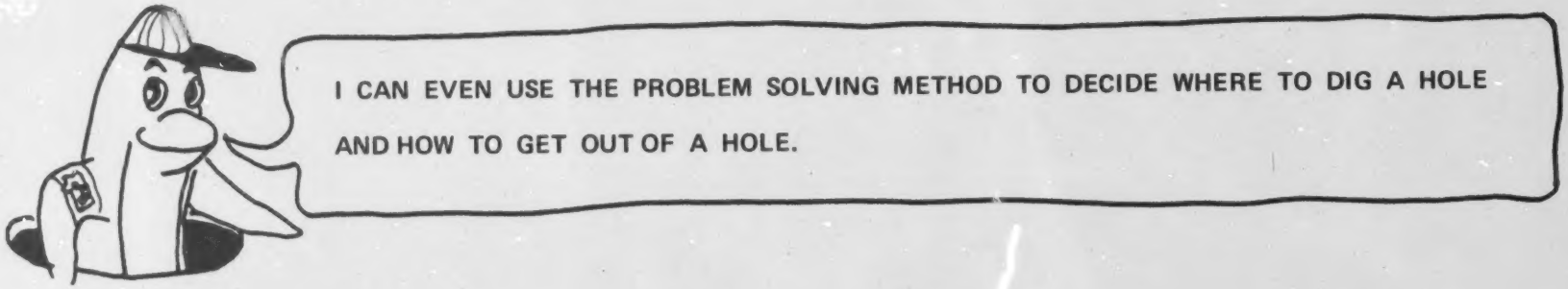

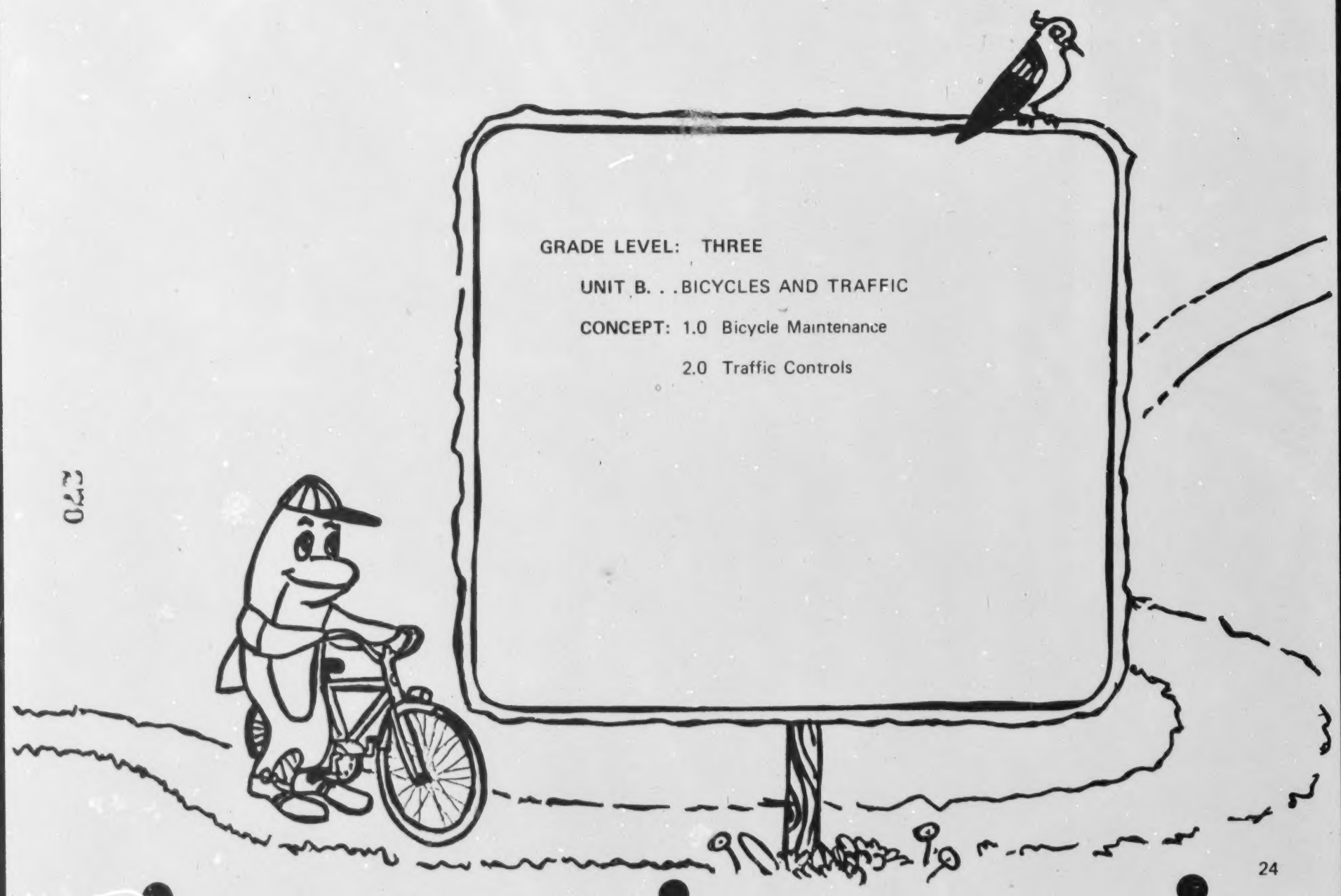

GRADE LEVEL: THREE

UNIT B. . .BICYCLES AND TRAFFIC

CONCEPT: 1.0 Bicycle Maintenance

2.0 Traffic Controls

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MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Three

Applied Instruction: Language Arts
Math
Social Studies

UNIT B. . .BICYCLES AND TRAFFIC

CONCEPT: 1.0 Bicycle Maintenance

PERFORMANCE OBJECTIVE: The student will be able to maintain a bicycle.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Film: "Bicycle Safety" No. 2795 State Audiovisual Library Information Sheet, page 10 & 16	1.1 Instructor helps students identify frequent trouble points on a bicycle. a. wheels b. tires c. brakes d. seat e. handie bars and grips f. lights g. reflectors h. pedals and chain	1.1 Student identifies the frequent trouble points for a bicycle. Individualized Learning Guide No. 5
	1.2 Instructor explains how to maintain the important parts of a bicycle.	1.2 Student identifies the proper maintenance of the bicycle parts. Transparency Original No. 6
Student Materials Individualized Learning Guide No. 5 Transparency Original No. 6		
Reinforcement Activity Bicycle folders or booklets using newspaper and magazine clippings related to the bike. Students bring their bike and each student gives his bike a "physical"		

NEW WORDS: maintenance, diagram

DIRECTIONS: MARK WITH AN 'X' PARTS OF THE BIKE WHICH OFTEN NEED TO BE CHECKED.

TRANSPARENCY ORIGINAL No. 6

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Three

Applied Instruction: Social Studies
Math

UNIT B. . .BICYCLES AND TRAFFIC

CONCEPT: 2.0 Traffic Controls

PERFORMANCE OBJECTIVE: The student will identify and k[illegible] proper action for traffic controls.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Bulletin board cut-outs of traffic signs, Appendix Information Sheet, page 12 & 13	2.1 Instructor assists students in identification of traffic controls by color, shape and legend.	2.1 Student identifies symbol and shape of traffic controls. Individualized Learning Guide No. 7 & 8
	2.2 Instructor places traffic controls on the bulletin board and discusses the individual signs with the class. **Trigger Questions** a. What is the purpose of each of the controls? b. What would happen if there were no controls?	2.2 Student learns the meaning of traffic controls.
Student Material Individualized Learning Guide No. 7-8		
Reinforcement Activity Upper grade level students can be encouraged to teach lower grade level students. Appendix F-L		

NEW WORDS: symbol, controls

DICK DOLPHIN SAYS:

ON THE LINE BELOW EACH SIGN WRITE THE SIGN'S MESSAGE.
COLOR EACH SIGN ITS PROPER COLOR.

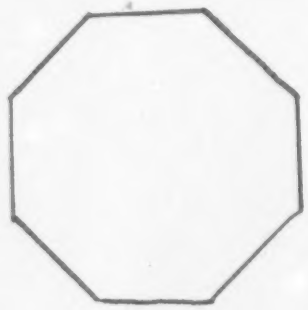
RAILROAD

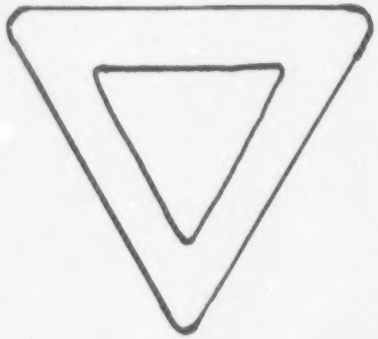
YIELD

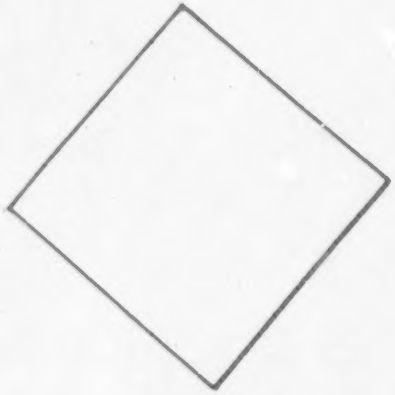
REGULATORY

WARNING

STOP







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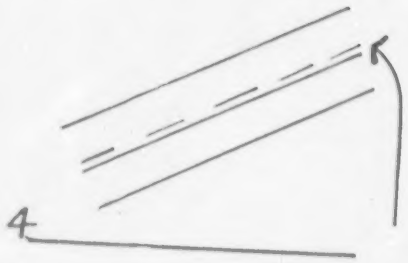

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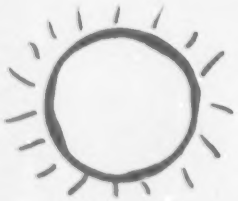

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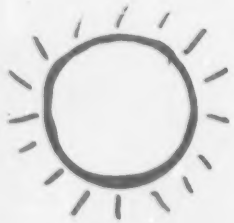

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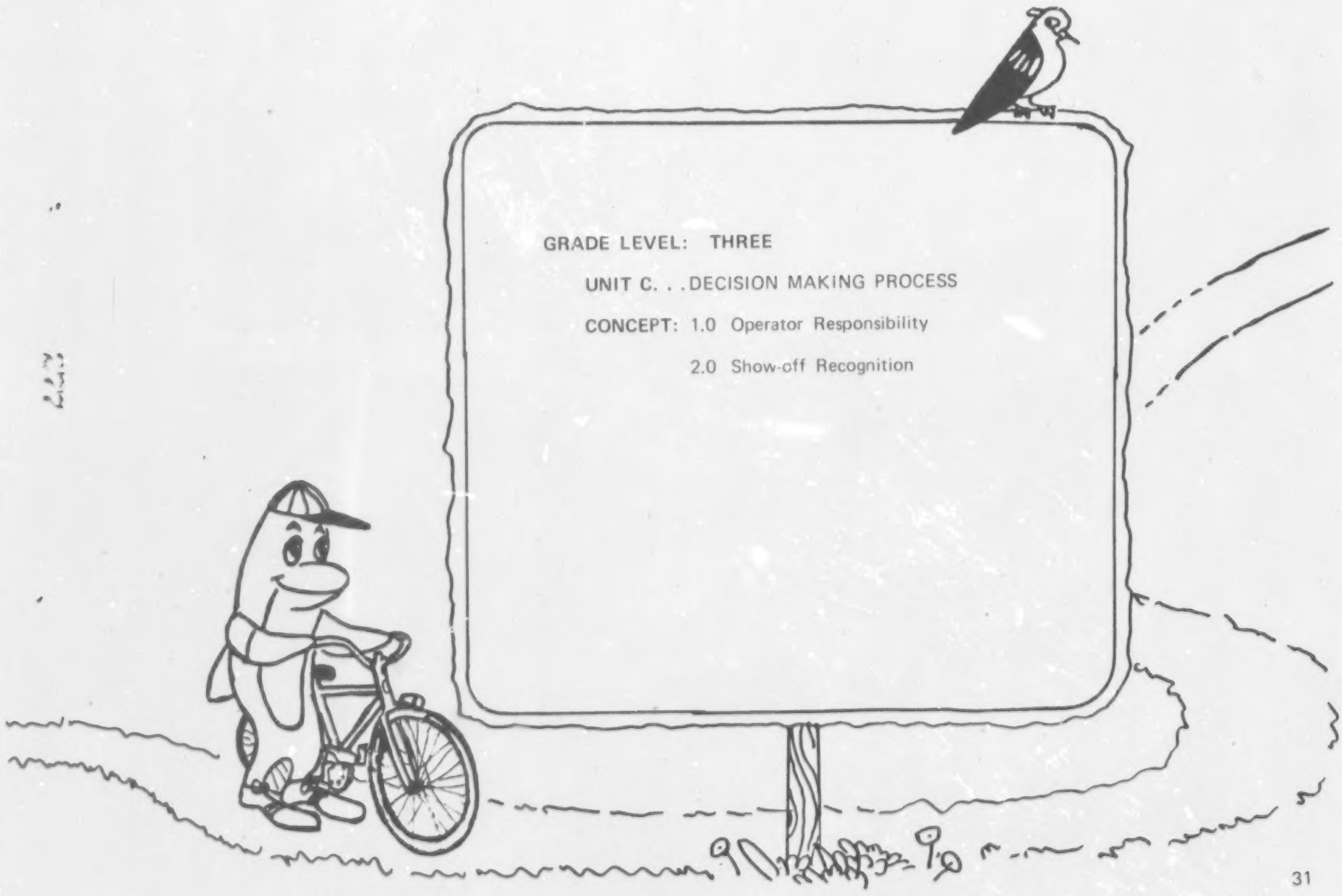

GRADE LEVEL: THREE
UNIT C. . . DECISION MAKING PROCESS
CONCEPT: 1.0 Operator Responsibility
2.0 Show-off Recognition

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Three

Applied Instruction: Social Studies
Health

UNIT C. . .DECISION MAKING PROCESS

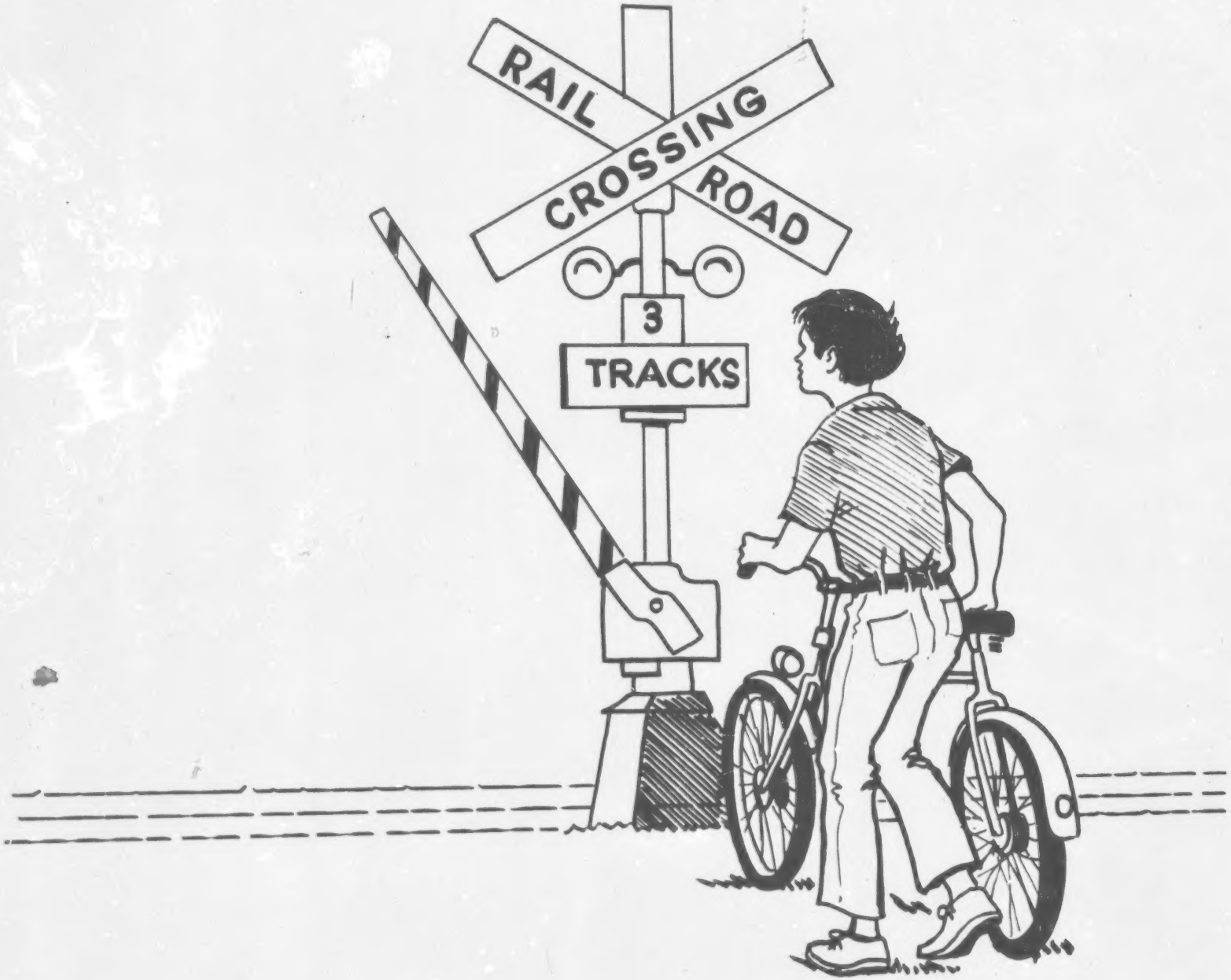
CONCEPT: 1.0 Operator Responsibility

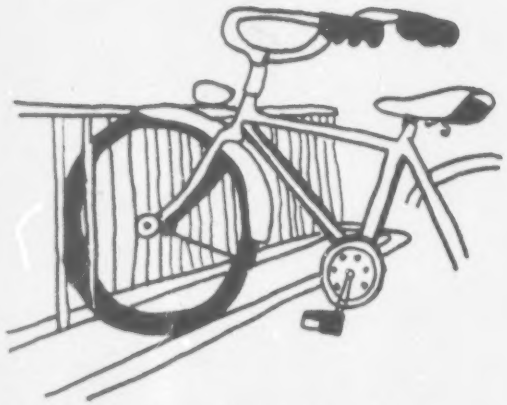
PERFORMANCE OBJECTIVE: The student will become aware of the operator responsibility.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Film: "I'm No Fool With a Bicycle" No. 7823 "The Day Bicycles Disappeared" No. 6616 State Audiovisual Library Information Sheet, page 10	1.1 Instructor review operator responsibility at traffic controls, with emphasis on railroad crossing controls.	1.1 Student knows meaning and responsibility at traffic controls. With emphasis on railroad crossing controls. Transparency Original No. 9
	1.2 Instructor/student discuss results of ignoring or deliberately disobeying traffic controls or laws.	1.2 Student is aware of results of ignoring or disobeying traffic controls and laws.
	1.3 Instructor shows vehicle operator responsibility by discussing a newspaper account of a collision. a. improper parking	1.3 Student discusses account of a collision and determines responsibility. Transparency Original No. 10
Student Material Transparency Original No. 9-12	1.4 Instructor/student discuss differences in night and day riding.	1.4 Student compares riding a bicycle at night and during the day Transparency Original No. 11
	1.5 Instructor/student review how a bike rider informs other drivers what he intends to do by hand signals.	1.5 Student reviews hand signals and their use. Transparency Original No. 11

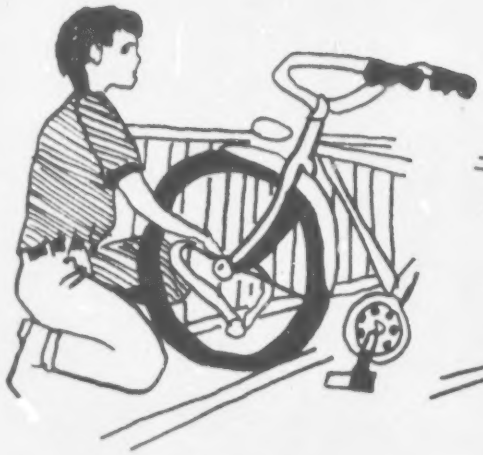
NEW WORDS: disobey, ignore, obey, collision, conflicts

TRANSPARENCY ORIGINAL No. 9

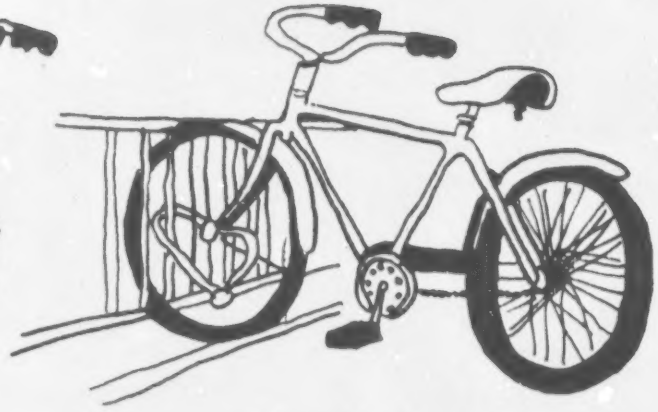




PARKING BIKE IN RACK



SECURING BIKE



CHAIN IN PLACE

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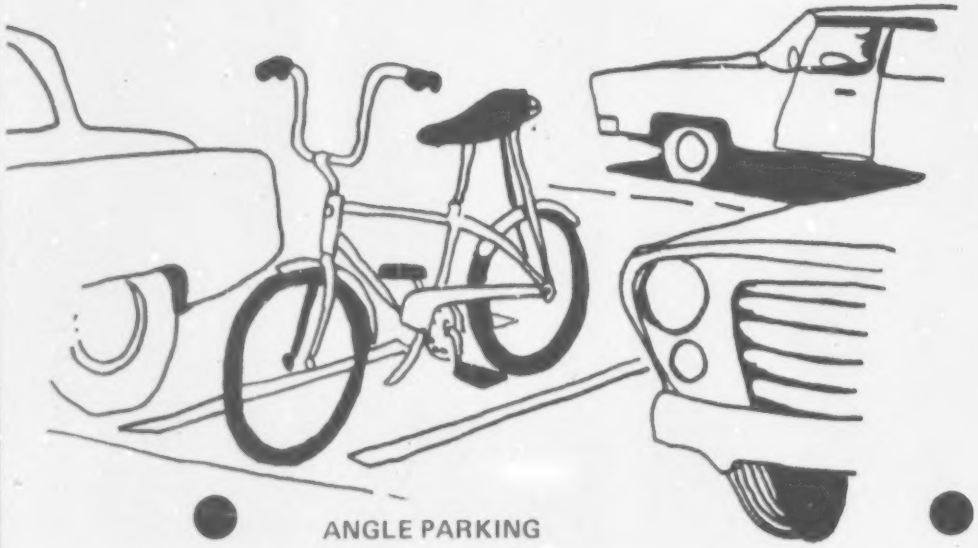
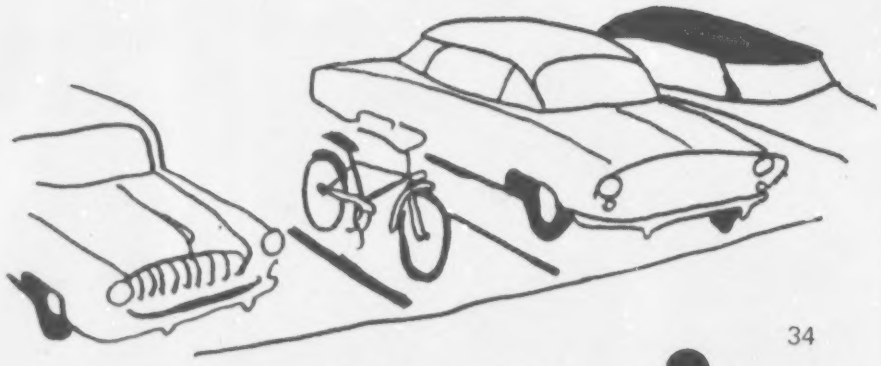
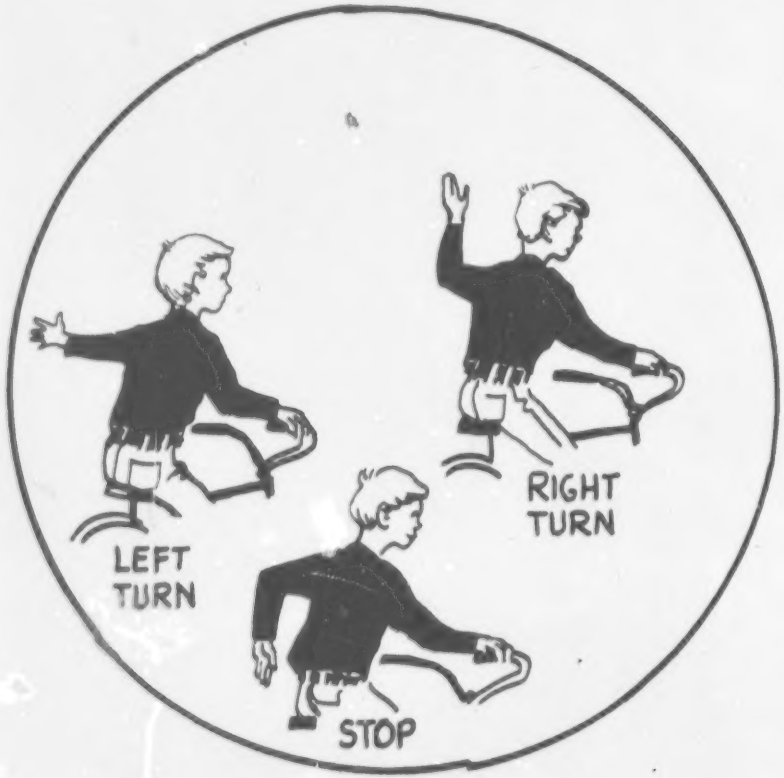


ANGLE PARKING



PARKING IN LOT



Hand Signals

Night Riding

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Three

Applied Instruction: Social Studies
Art

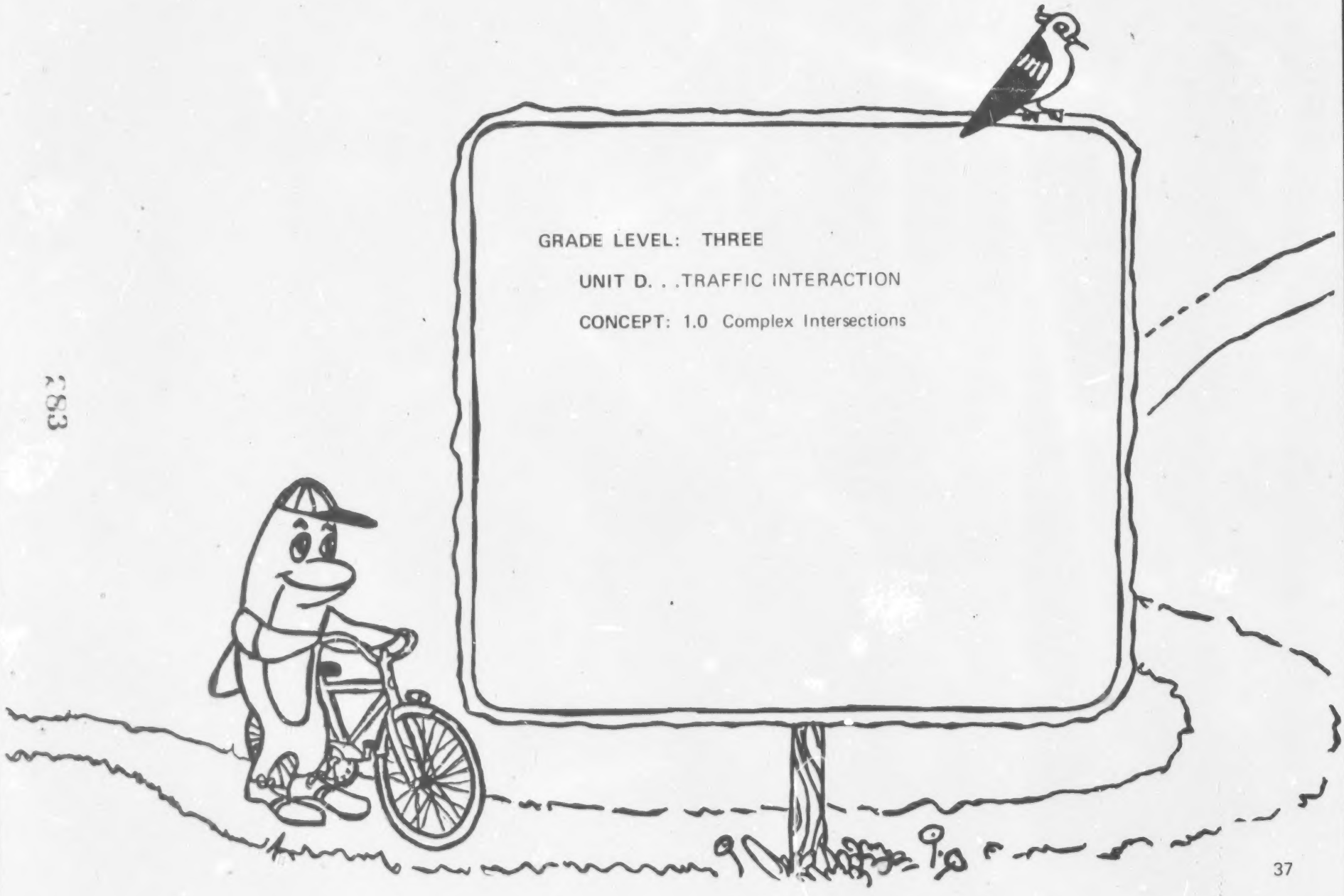
UNIT C. . .DECISION MAKING PROCESS

CONCEPT: 2.0 Show-off Recognition

PERFORMANCE OBJECTIVE: The student will recognize the risk in show-off stunts.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material	2.1 Instructor/student discussion about show-off stunts. a. Riding with no hands on the handle bars. b. Riding double. c. Weaving in and out of traffic. d. Jumping ramps and curbs. e. Wheelies. **Trigger Questions** a. What may happen when the bicyclist is weaving in and out of the traffic? b. What is the danger of the above listed stunts?	2.1 Student discusses what stunts a show-off may try to perform.
Student Material	2.2 Instructor assigns drawing of possible collision situation from the list of topics and has the student tell about the drawing.	2.2 Student makes a drawing of possible collision from discussion topics and tells meaning of the drawing.
Reinforcement Activity Student drawing can be a cartoon or cartoon strip.		

NEW WORDS: hi-riser, restricted, supervised



GRADE LEVEL: THREE

UNIT D. . .TRAFFIC INTERACTION

CONCEPT: 1.0 Complex Intersections

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Three

Applied Instruction: Social Studies

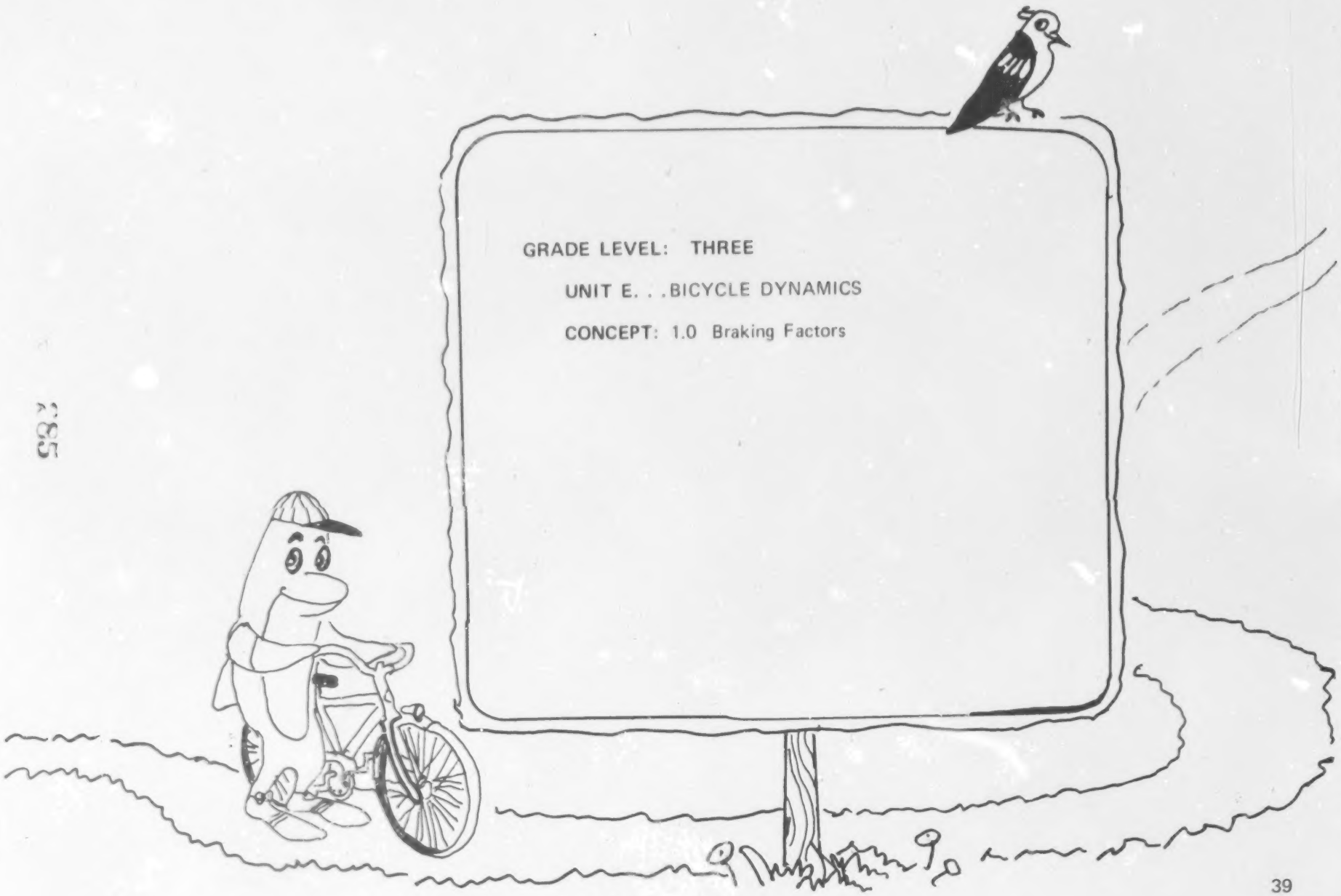
UNIT C. . .TRAFFIC INTERACTION

CONCEPT. 1.0 Complex Intersections

PERFORMANCE OBJECTIVE: The student will recognize complex intersections and understand proper reaction to the intersections.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 14 & 15 Film: "You and Your Bicycle" No. 2184 State Audiovisual Library **Student Material** Student draws various intersections in his area and determines how to cope with the intersection on a bike. **Reinforcement Activity** Blackboard illustrations of familiar intersections related to bicycle traffic.	1.1 Instructor explains the need to be cautious when approaching and crossing a complex intersection. **Trigger Questions** a. What is the responsibility of every operator at an intersection? b. No matter how difficult the intersection the operator must follow what decision making process?	1.1 Student tells the correct procedure at a complex intersection.

NEW WORDS: simple, complex, horizontal, vertical


GRADE LEVEL: THREE
UNIT E. . .BICYCLE DYNAMICS
CONCEPT: 1.0 Braking Factors

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Three

Applied Instruction: Science
Physical Education
Health

UNIT E. . .BICYCLE DYNAMICS

CONCEPT: 1.0 Braking Factors

PERFORMANCE OBJECTIVE: The student will identify factors affecting stopping distance and understand operator compensations.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page P-12 **Reinforcement Activity** Demonstration on playground: measure the distance to relate actual stopping distance to feet. Timing a stop imresses stopping time.	1.1 Instructor/student discuss the factors that could affect the stopping distance of a bicycle and the operator compensation for these factors. a. road surfaces asphalt cement gravel dirt b. tire conditions new or worn slicks c. speed d. weather ice rain snow fog e. types of brakes coaster front and rear caliper brakes f. inclines g. bicycle condition	1.1 Student identifies the various factors affecting stopping distances and the operator compensations.

NEW WORDS: asphalt, caliper, environment, slicks, coaster, compensation, incline, assured, alter

GRADE LEVEL: THREE
UNIT F. . .CAREER AWARENESS
CONCEPT: 1.0 Safety Workers

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Three

Applied Instruction: Social Studies

UNIT E. . .CAREER AWARENESS

CONCEPT: 1.0 Safety Workers

PERFORMANCE OBJECTIVE: The student will become aware of jobs related to bicycling.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: The student should consider himself the most important safety worker.	1.1 Instructor/student discuss job which are directly related to bicycle ownership and operating.	1.1 Student thinks of as many jobs as he can that are involved in the ownership and operation of a bicycle. Transparency Original No. 12
	1.2 Instructor lists related jobs to bicycling.	1.2 Student thinks of as many jobs as possible related to bicycling. Transparency Original No. 12
Student Material Transparency Original No. 12		
Reinforcement Activity Page 44		

TRANSPARENCY ORIGINAL No. 15

CAREER AWARENESS

LEVEL	BICYCLE	RELATED TO BICYCLING
2–3	SALES PERSON	DOCTOR
	BIKE REPAIR	AUTO DRIVERS
	POLICEMAN	SANITATION ENGINEERS
	SCHOOL PATROL	PLAYGROUND SUPERVISOR
	STREET REPAIRMAN	SERVICE STATION ATTENDANT
	MAINTENANCE OF STREETS, SIDEWALKS, AND LIGHTS	PARK AND RECREATION OCCUPATIONS
		PRODUCTION AND DISTRIBUTION

REINFORCEMENT ACTIVITY

Career Awareness Level 2-3

The following is a list of possible activities which can be introduced to create awareness of occupations integrated into instructional areas:

MATH
1. Prepare shipping invoices involving addition, subtraction, multiplication and division.
2. Work out fuel consumption for miles traveled and cost of other expenses for travel.

SOCIAL STUDIES
1. Discuss the upkeep of roads and restrictions on transportation placed by local, state and federal government.
2. Determine the impact of transportation on a community.

ART
1. Make a mural of different phases of transportation.
2. Paint and display traffic signs.

MUSIC
1. Learn songs of transportation such as "Casey Jones".

SCIENCE & HEALTH
1. Determine how energy is produced and distributed.
2. Discuss how refrigeration transportation has influenced our eating habits.

LANGUAGE ARTS
1. Read stories about early bicycle transportation.
2. Have oral reports about transportation used by the early settlers.

PHYSICAL EDUCATION
1. What are the physical requirements of various types of occupations related to bicycle transportation?

The general plan for an introduction of career related fields is for the observable and familiar careers to be introduced at the early levels of kindergarten and grade one. The directly related careers are mentioned as well as a repetition of the observable and familiar careers in levels two and three.

More complex and indirectly related careers as well as the previously mentioned careers at levels four and five. Naturally the complexity and extent of the traffic and transportation fields are so far reaching that only a few select careers are listed, a complete list would demand a volume. Occasionally an exotic career should be brought to the attention of the student to stimulate thought on the part of the student, and to motivate students to explore the extent of the transportation field.

Grade six explores the way to get a job. Students at grade six often do have some jobs which are involved in transportation to an extent, such as clearing sidewalks, and it should be explored as to how this can become a business like venture.

A perusal by the teacher of a volume of occupational title could be useful to refresh himself with the depth and scope of the traffic and transportation field.

On the left is a list of suggested activities which can be integrated into the curriculum. This list is limited but may be a start to help the teacher develop a vast career awareness in the student.

APPENDICES

TRAFFIC INTERSECTION	A
VEHICLES TO SCALE	B
DICK DOLPHIN FIGURES	C–D
BICYCLIST ARM PATCH	E
TRAFFIC CONTROLS	F–L
SAMPLE ACTIVITIES	M
ROUTE GAME	N
BIKE FESTIVAL	O–S

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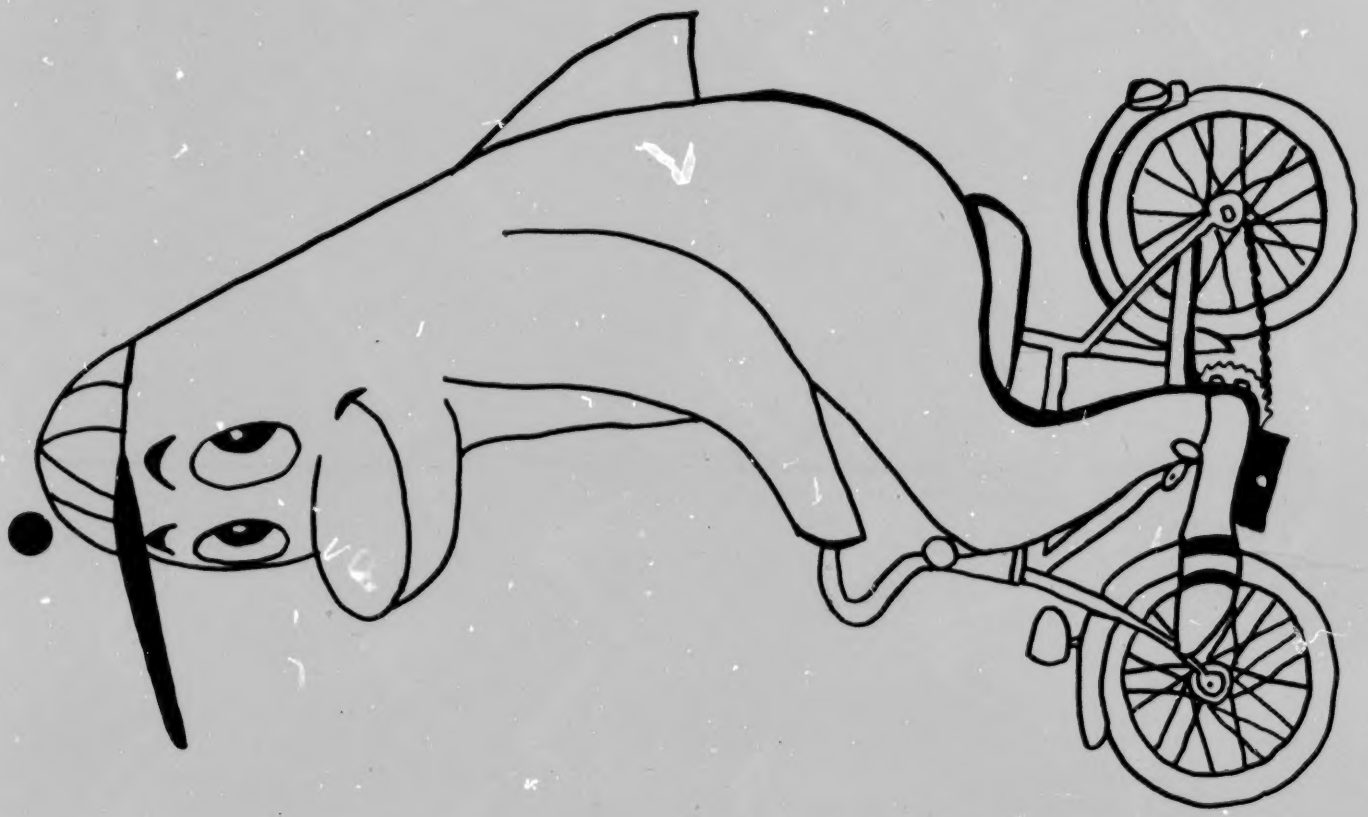

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STOP

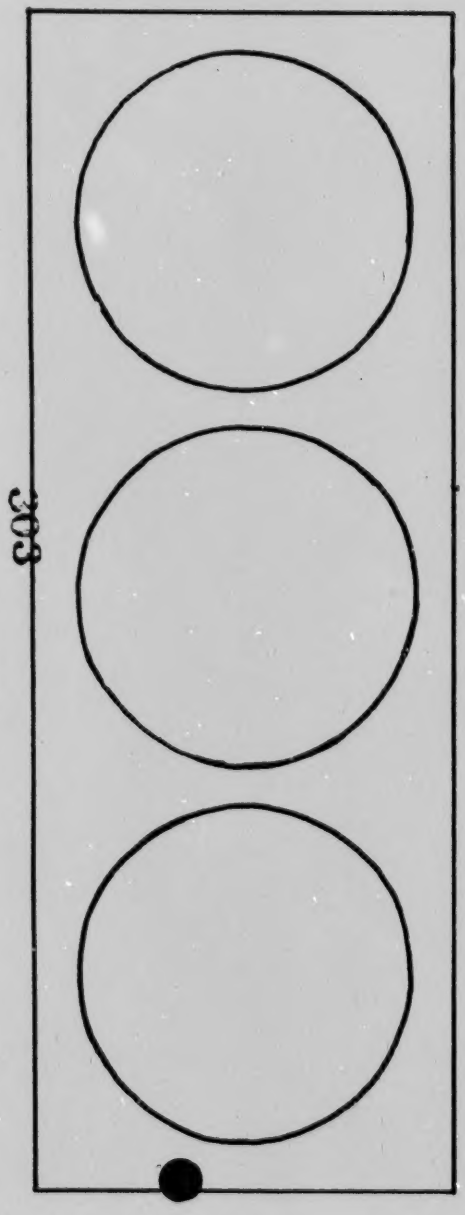
RR

YIELD

Sign coloring – WHITE: bicycle interior, border line, arrow, letters **BIKE ROUTE**
GREEN: background of bicycle, background or arrow

REINFORCEMENT ACTIVITY

MODEL TRAFFIC LIGHT



Cut three large holes in the side of a half-gallon milk carton. Cover the top hole with *red* cellophane or tissue. Cover the middle hole with *yellow*, and the bottom hole with *green*. Cut a hole in the opposite side of the carton so the cellophane circles can be illuminated from behind with a flashlight. Insert a cardboard mailing tube in the base for a stand. Children can take turns operating the traffic light with a flashlight.

DICK DOLPHIN:

HE IS VERY BRIGHT.

WHEN THE LIGHT TURNS RED -
STOP! HE USES HIS HEAD.

WHEN THE LIGHT TURNS YELLOW -
WAIT! BE A CAREFUL FELLOW.

GREEN LIGHT - LOOK LEFT AND RIGHT
AND BE SURE IT'S CLEAR,
BEFORE YOU CAN CROSS WITHOUT ANY
FEAR.

Ten Little Bikes
(tune: *Ten Little Indians*)
10 little bikes all in a line;
1 fell over—then there were 9.
9 little bikes all in a line;
1 was stolen—then there were 8.
8 little bikes all in a line;
1 got hit—then there were 7.
7 little bikes all in a line;
1 lost a wheel—then there were 6.
6 little bikes all in a line;
1 hit a tree—then there were 5.
5 little bikes all in a line;
1 went through a stop sign—then there were 4.
4 little bikes all in a line;
1 rode double—then there were 3.
3 little bikes all in a line;
1 didn't signal—then there were 2.
2 little bikes all in a line;
I hooked a ride—then there was 1.
1 little bike all well;
Following the safety rules—he'll stay that way.

Poem
When riding a bike,
Look out for those who hike.
Make sure you use your noggin.
Don't be dobbin
Keep moving along, and obey
all bicycle rules,
For you wouldn't want the doctor to
use his tools.
Don't fall down and bump your nose,
Just because you were pedaling
barefoot with your toes.
Always be careful.
Don't be dareful.
Don't ride double with your friend,
Or it may very well be your end.

Crossing a busy street
Is not a treat.
You have to look left and right
Until there's not a car in sight.

Know your bicycle rules,
Don't be fools.
Remember them all
And you won't have to make
a doctor's call.

Poem
When Dick Dolphin rides his bright red bike,
He watches for the traffic light.
He stops with red, and goes with green,
For the rushing cars are very mean.
The cars are big; Dick's bike is small.
Dick knows the safety rules—one and all.
Dick wishes you would know them too;
And use them on your way to school.
But not just on your way to school;
ALWAYS use Dick's safety rules.

by *Kara*

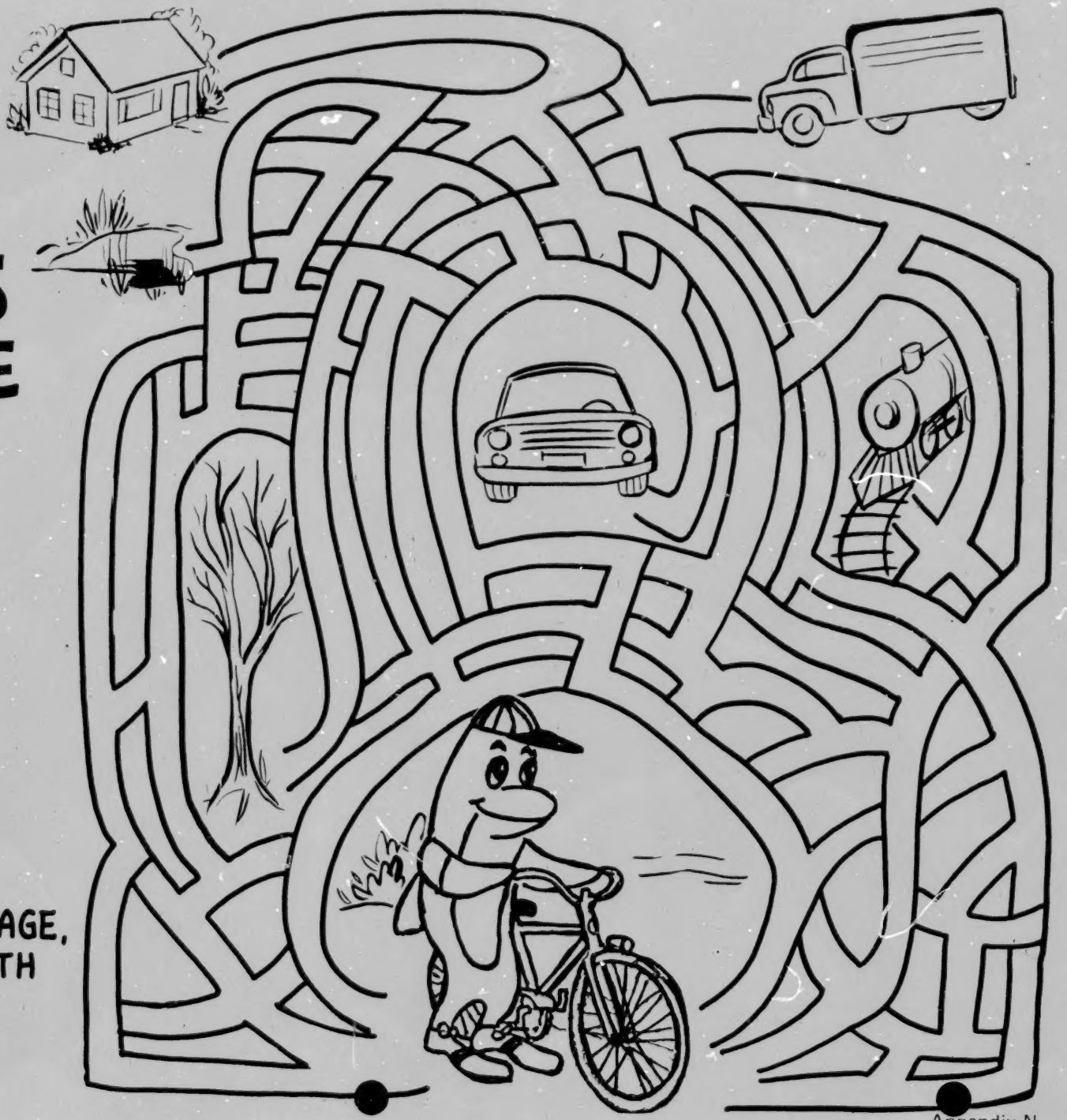
Read Aloud Safety Story
One day, Dick Dolphin and his friends went for a ride on their bikes. They looked at the signs by the road. They saw a white sign with a red band like this one.

"What shall we do?" asked Jack. "We must slow down," said Dick. "Then we will look around carefully. If there isn't any car coming we will go on." "Why do we have to slow down?" asked Tom. "So that we will be safe bike riders," said Dick. "The people on that other road have the right-of-way." "What does that mean?" asked Jack. "It means that they do not have to stop for us." said Tom. "Isn't that right, Dick?" "Yes," said Dick. "Now here is another sign. What does it say?"

"I know that one," said Jack. "That means stop." "Why is it red?" asked Tim. "I know." said Bob. "Red means danger. The red sign with the white letters is easy to see, too." "You are right." said Dick Dolphin. "It is time to go home. We will find more safety signs when we go riding tomarrow. Always remember, *Safety First*!"

Fair–Mont–Egan School

WHICH IS THE SAFE PATH ?



START AT THE BOTTOM OF THE PAGE, CHOOSE YOUR PATH CAREFULLY.

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School–Community Activity

A group activity, in which all students participate and the parents are involved, reinforces a student, instructor and community effort. The following is a sample of such an activity to assist you in planning. For each community the conditions, equipment and need will vary and the school should plan according to these considerations.

Leadership
Leadership is the key to success. Community involvement, a strong point in this activity, requires firm but not dictatorial leadership. Planning by the leader will assure the essential consideration of safety for the participants and observers.

Objective
1. Create attitudes which will allow students safe and enjoyable bicycle operation experience.
2. Provide an activity which creates parental awareness of bicycling and what is being taught in the school.
3. Create, by parent and community, awareness of bicycle safety.
4. Provide experiences for problem solving in simulated situations.
5. Prepare skill competencies in bicycle operation in the traffic environment such as balance, control and emergency movement.

Planning
Activities should be divided by age groups, for example, ages 6, 7, and 8 might participate as a group. A caution to the planner; avoid timed activities as opposed to skilled activities. An activity designed to improve skills of students, and being non competative, encourages young people participating to learn and not to show off.

Parents and news media should be informed well in advance of the activities. Perhaps transportaiton on a school bus could be provided. This will also help parents to understand school problems in transportation.

Most students and parents are willing participants in well planned activity spanning about 2½ to 3 hours. A program should be printed and include objectives and appropriate acknowledgements.

Planners should involve community agencies such as law enforcement, service clubs, high school students, bicycle groups, bicycle dealers, senior citizens, et al.

Sample Program:
1:00 P.M. . . . Film Showing
1:30 P.M.M. . . . Bike Inspection
2:15 P.M. . . . Bike Skills Activities
3:00 P.M. . . . Awards
3:15 P.M. . . . Bike Parade

Film – Appropriate film for parents and students chosen by age level. Previewing the film is essential. Suggested films: "Just Like A Car" or "Tripping On Two." Montana Audiovisual Library, Office of the Superintendent of Public Instruction, Helena, MT 59601.

Inspection – An inspection form, a sample of which appears on the following pages, can be obtained from the Montana Highway Patrol Bureau, Helena, MT 59601.

Activities – An outline of activities appears on appendix R. Scoring of the skills must conform to your program objectives. A suggestion is that each of the five parts have a value of 20 points. Points are deducted for errors. Use any or all activities adopting each activity to age group and area.

Awards – Every participant should leave the activity with some recognition that they have participated. Additional prizes or awards for skills could include safety items for bikes such as bike flags, reflectors, bike horn or a T-shirt (see page 7). In some communities service organizations or businesses will contribute such items. A sample award is provided on the last page.

Parade – The first consideration of parade organization is safety. Plan the route and determine how dispersion of participants will take place, keeping in mind community traffic patterns.

Helpful Aids – General outlines of skill activities and helps to a leader planning a group skill activity:

American Automobile Association
1712 G. Street, N.W.
Washington, D.C. 20006
Request single copies of activity material.

Bike Reflector Kits, products and price list available on request
Safety Factors, Inc.
6746 West North Avenue
Chicago, IL 60635

Bike safety items, price list available on request:
American Industries, Inc.
Sarasota, FL 33580

Activities and information of general use, "Expert Bike Driver":
Channing L. Bete Co., Inc.
45 Federal Street
Greenfield, MA 01301
Student booklet price 25 cents each.

Cones, bike triangles, line markers, etc.:
Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, MO 63701
Request catalog.

Reflective tape emblems with Dick Dolphin, request prices and information:
Traffic Control Products, 3M Company
James A. Delaney
109 Riverview 1 West
Great Falls, MT 59401
Request additional information on Bike Safety Kits.

(SAMPLE)

SCORE SHEET

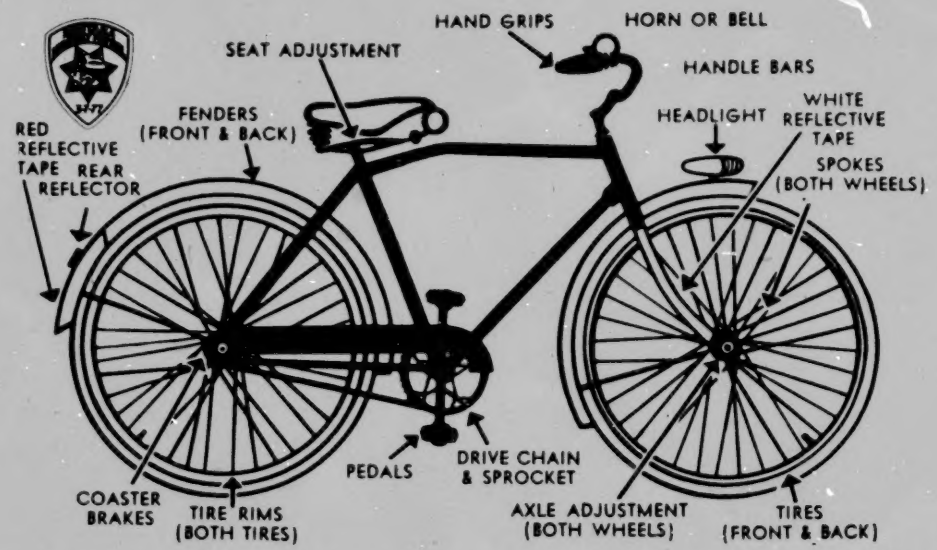
Name _____

ACTIVITY	SCORE	IMPROVEMENT IN
1. Figure Eight		
2. Straight Line		
3. Weaving		
4. Intersection		
5. Evasive		
6. Stopping		
Total		

Score Keeper _____

(SAMPLE)

INSPECTION FORM



Available from:
Montana Highway Patrol Bureau
Helena, MT 59601

BICYCLE SAFETY INSPECTION: The club instructor is to inspect each bike or he may accept a card signed by an authorized bicycle dealer as proof of safe condition.

Name of Bicycle Owner .....

Inspection Made by .....

	Pass	Adjusted	Repairs Needed
HANDLE BARS—Right height, tight. Handlegrips must be tight.			
BRAKES MUST HOLD.			
SADDLE—Should be adjusted so that leg forms straight line when rider sits with heel on pedal at lowest point.			
PEDALS—Should have good treads, lubricated to turn freely.			
WHEELS—Wobble indicates need of wheel cone adjustment or replacement of broken spokes.			
REFLECTOR—Required as essential safety item.			

HEADLIGHT: The club does not insist on a headlight, but the child must understand that it is required by law if riding after dark.

PARENTS: For safe, easy riding keep bikes in good repair. Your authorized bicycle dealer will make this inspection.

(SAMPLE)

Bicycle Skill Activities

Area: Boundries may be determined by using cones, block or lines. The perimeter of the area should be free of hazards and boundry items safe if hit by the participants. Area available and ability of participants will dictate distances.

1. *Figure Eight* – Purpose: balance and change of direction. When operating a bicycle there are frequent instances when the operator must swerve to avoid a pedestrian, a pothole, or an oncoming vehicle.

2. *Straight Line* – Purpose: start and stop without weaving. With a bicycle of proper size a participant can start and stop without weaving. The proper bike pedal position should be checked.

3. *Weaving* – Purpose: change of direction and maneuver. A bike operator becomes aware that he should not look at an obstacle because he steers in the direction he is looking.

4. *Intersection* – Purpose: hand signal check. Correct hand signals used without losing control of the bicycle.

5. *Evasive* – Purpose: evasive maneuver and change of direction in a confined area. A car door opening in the path of a bike operator requires swerving around the obstacle and avoiding oncoming traffic in a confined area.

6. *Stopping* – Purpose: stopping ability and stopping distance. Operators of bicycles are often unaware of stopping distance. Balance is important in stopping.

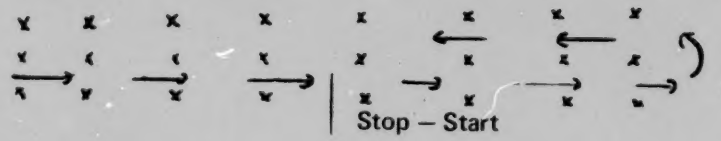
(SAMPLE)

Course Outline

'x' indicates cones or markings which show the course. Adjust distance to the area and group. Mark lanes 4 feet wide.

1.

2.



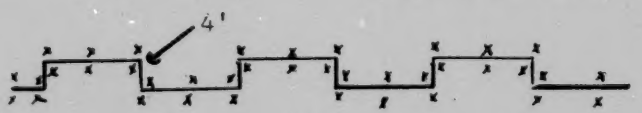
3.

Cones 8' to 10' apart

4.

← Person to tell participant to turn left, right, stop or slow.

5.



6.

Reaction time —— Braking distance
(Total stopping distance)

SAMPLE
AWARD

BICYCLE SAFETY AWARD

TO _____

For participating in **BICYCLE SAFETY INSTRUCTION.**

Dated _____

_____ _____

School Superintendent or Principal *Instructor*

Traffic Education for Montana Elementary Schools

4

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DOLORES COLBURG, SUPERINTENDENT OF PUBLIC INSTRUCTION, HELENA, MONTANA 59601

FEB 03 1975

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Financed through a grant under the Highway Safety Act of 1966, P.L. 89-564

STATE PUBLISHING CO.–LITHO

PREFACE

This curriculum guide has been developed to assist teachers in an instructional program for elementary school youngsters in traffic education. The guide provides instructional aids and resource materials that are designed to fit smoothly into many areas of existing elementary curricula.

The basic materials in this guide were developed by participants in a July, 1973 workshop sponsored by my office and supported with a grant under the Highway Safety Act of 1966. The participants, who functioned as a task force team, are

Larry Becker
Barbara Bowlen
Don Burman
Marge Carlson
Joel Cobetto
Robert Eva
Gary Ford
Earl Furlong
Dorothea Grow
James Gunlikson
Lowell Hayes
Patricia Heydon
David Jones
Margaret Kavulla
Robert LeMieux
Thomas Loggins
Dan Magstadt
Lynn Mavencamp
Dan McKenty
Mildred McMillion
Harold G. Mogen
Raine Montysals
Roland Newton
Boyd O'Connell
Ed Reichert
Michael Rosbarsky
Minnie Skinner
David Stabio
Jack Sutton
Tally Taylor
William Taylor
R. Keith Thomas
Andrew Veis
Richard West
Jack Witham

Curtis R. Hahn, Traffic Education Supervisor, and Georgia D. Rice, Assistant Traffic Education Supervisor in my office, directed the entire effort in producing this guide. Consultative assistance, particularly for the July, 1973 workshop, was provided by Richard Boyer of Glenview, Illinois. Jerome Rankin did the artwork for the guide.

While this guide was pilot-tested in twelve elementary schools in the state prior to final publication and distribution, we would welcome responses from all who receive the guide as to its usefulness as an instructional and learning tool. Critical review of and comment on this guide can be of assistance to us in future efforts of this office.

DOLORES COLBURG
Superintendent of Public Instruction

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APPLIED INSTRUCTION AREA

To assist the instructor to integrate safety activities into instructional areas, subjects are listed and appropriate pages given below.

Subject Area	*Page Number of Related Traffic Safety Activities*
ART	52, Appendix L
HEALTH	25, 26, 29
LANGUAGE ARTS	19, 26, 38, 41, 44, 52 Appendix A, C, F, M
PHYSICAL EDUCATION	32, Appendix J, K, O–S
MATHEMATICS	32, 38, 41
MUSIC	38, Appendix H
SCIENCE	21, 32, 47, 49
SOCIAL STUDIES (Careers)	19, 21, 25, 26, 28, 29, 32, 38, 44, 52

INTRODUCTION

As most of you know, traffic accidents represent one of the greatest threats to human preservation. Individuals are involved in a highly complex traffic environment from birth and remain involved throughout their lifetime as a passenger, pedestrian, bicyclist and motor vehicle operator. Consequently we owe it to our students to provide them the opportunity to learn the knowledges, skills, and attitudes that will allow them to function successfully within the traffic environment.

The education of a student is brought about by effective management of the total learning environment. After perusing the enclosed curricular guidelines, we believe you will discover that management by objective can be successfully applied and because the program is "performance based," learner achievement is promoted.

If we accept human preservation as an appropriate educational goal to manage as a part of the total learning environment, we must help the student develop his dicision making ability. The decision making process should begin early in the development of the student. The performances required in this program are built around decision making and problem solving. To be more specific, the concepts of IDENTIFY, PREDICT, DECIDE and ACT must be encouraged and taught throughout the utilization of this material.

The student must learn to IDENTIFY the problem or situation; PREDICT what might happen; DECIDE what course of action he must take to successfully deal with the situation; and ACT effectively. The IPDA concept has application on a much broader basis than just the traffic environment.

Human preservation cannot be achieved without the help, commitment and involvement of the following:

PARENTS

Nobody quarrels with the axiom that education begins in the home. Utilizing the home as the nearest "grass roots" of a child's learning environment is essential. The more sterile and removed the environment of the classroom, the more doomed to failure learning becomes. Ways to gain the curiosity, healthy interest, and helpful assistance of the parents are integrated in this program. The imagination of the instructor is unlimited when involvement is used to further develop the methods or create new methods.

STUDENTS

This program is based on the principle that students are aware of what tasks are expected of them, that they know what they can expect of their teachers, and that through their efforts, they can achieve success. Students are the gatherers and discoverers of information, not the receivers. Students develop psychomotor skills through practice, not as trainees. Students must become involved in the total task.

SCHOOL

When instructors, the administration, and school board agree on established goals, the compartmentalized school solidifies into a total unit dedicated to teaching the total student. A student who becomes a statistic in accident reports is denied his birthright to an education. Accident reduction in the traffic environment is an easily agreed upon goal.

COMMUNITY

No matter how small or isolated the community, various service, social, religious, and fraternal organizations and agencies are dedicated to the same goal as education. Some of these organizations and agencies have a wealth of experience, materials, and maybe most importantly, time which can be utilized and channeled for the benefit of kids. The prepared, interested and effective teacher makes full use of the community.

STATE

The Office of the Superintendent of Public Instruction Traffic Education Program is especially receptive to your suggestions to improve, polish, and perfect the instructional content of this program. Any evaluation, innovation, successful methodology from you, the instructor, would be helpful. Other agencies are also committed to the education of youth. Some are mentioned in this program.

FEDERAL

The many projects initiated by the federal government, which focus on the youth, should be evidence of a commitment to be of assistance. Often, what seems to be apathy is ignorance of your needs.

LAW ENFORCEMENT AGENCIES

From the highway patrolman to the town marshal to the sheriff – all have a vital concern that a student will be educated with a respect for and understanding of the laws which govern a society. Probably from no other source will the instructor find more cooperative and helpful people. Too often these people have seen the results of ignorance and carelessness in a traffic environment. They have a personal and professional commitment to the same goals as the instructor and this program.

SUMMARY

Students would never learn a new concept if it were not a more advanced endeavor than his previous level of knowledge. The program is created on a "building block" concept and though some concepts are difficult at the grade level assigned, the instructor should be cognizant that the student beginning at K with the kindergarten material will be ready for grade one material. Also it is not a challenge to the learner to repeat a concept which he has already discovered. Challenge your student or you will have discipline problems, frustration, and dull classes.

INVOLVEMENT

CREATES

COMMITMENT .

COMMITMENT

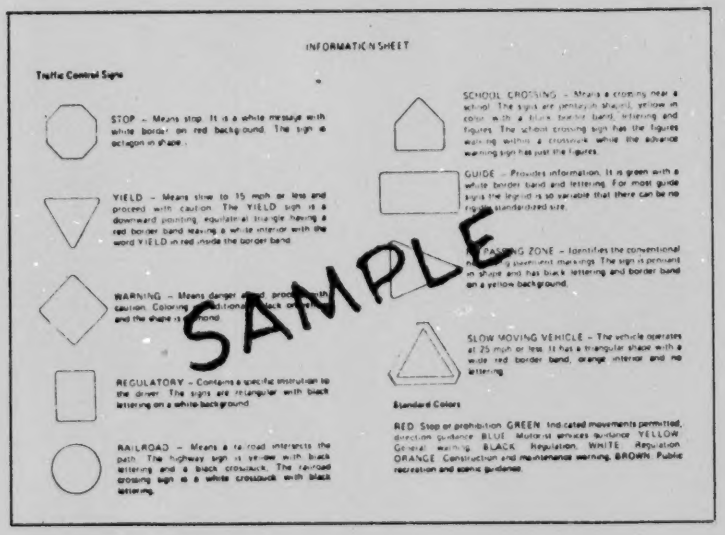
CREATES

SUCCESS.

DESCRIPTION OF FORMAT

The description of format found below is intended to provide the teacher with an overview of the various instructional materials used throughout this curriculum guide. These instructional materials have been color-coded for easier identification and implementation of unit activities. All teaching materials are printed on yellow paper. All appedices are printed on white paper. This curriculum is composed of the following instructional materials: 1. Information Sheets; 2. Format Sheets; 3. Individualized Learning Guide Sheets; 4. Transparency Original Sheets; 5. Reinforcement Activity Sheets; and 6. Appendices.

1. INFORMATION SHEETS: *Information Sheets* are printed on yellow paper and precede all other instructional materials. There are nine short sections to provide the instructor with needed information about bicycles. The *Information Sheets* help to prepare the instructor so that he will have the knowledge to teach and answer questions about bicycles. Before beginning instruction it is recommended that the instructor read all of the *Information Sheets.*



INFORMATION SHEET

Traffic Control Signs

STOP – Means stop. It is a white message with white border on red background. The sign is octagon in shape.

YIELD – Means slow to 15 mph or less and proceed with caution. The YIELD sign is a downward pointing, equilateral triangle having a red border band leaving a white interior with the word YIELD in red inside the border band.

WARNING – Means danger [illegible] proceed with caution. Coloring [illegible] black on yellow and the shape is diamond.

REGULATORY – Contains a specific instruction to the driver. The signs are rectangular with black lettering on a white background.

RAILROAD – Means a railroad intersects the path. The highway sign is yellow with black lettering and a black crossbuck. The railroad crossing sign is a white crossbuck with black lettering.

SCHOOL CROSSING – Means a crossing near a school. The signs are pentagon shaped, yellow in color with a black border band, lettering and figures. The school crossing sign has the figures walking within a crossbuck while the advance warning sign has just the figures.

GUIDE – Provides information. It is green with a white border band and lettering. For most guide signs the legend is so variable that there can be no [illegible] standardized size.

[illegible] ZONE – Identifies the conventional [illegible] pavement markings. The sign is pennant in shape and has black lettering and border band on a yellow background.

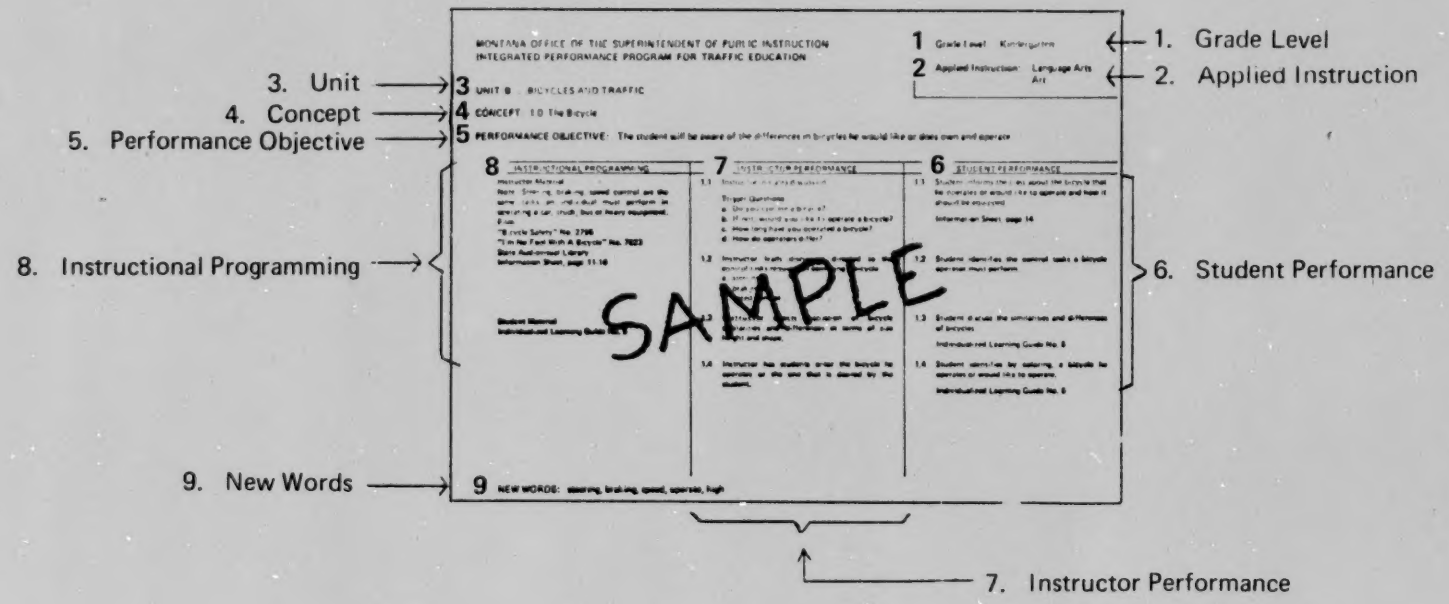
SLOW MOVING VEHICLE – The vehicle operates at 25 mph or less. It has a triangular shape with a wide red border band, orange interior and no lettering.

Standard Colors

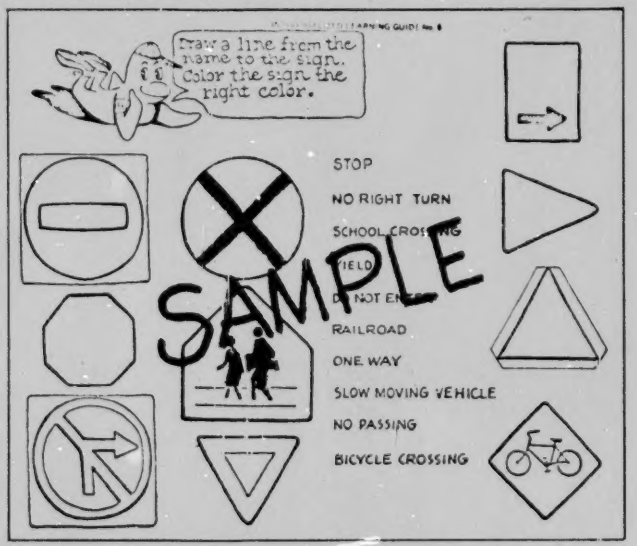
RED Stop or prohibition GREEN Indicated movements permitted, direction guidance BLUE Motorist services guidance YELLOW General warning BLACK Regulation, WHITE Regulation ORANGE Construction and maintenance warning, BROWN Public recreation and scenic guidance

SAMPLE

2. FORMAT SHEETS: *Format Sheets* are printed on yellow paper and provide the instructor with the following information: (1) Grade Level – indicates grade level for which this material is best suited; (2) Applied Instruction – indicates the subject matter in your existing curriculum that most closely applies to the specific concept being taught; (3) Unit – indicates the major topic being covered; (4) Concept – indicates a single idea to be taught; (5) Performance Objective – indicates what it is the student should know, feel, or be able to do at the completion of the instruction; (6) Student Performance Column – identifies what activity the student will be doing in order to learn the *Performance Objective*. Each student activity has a number. the first digit of that number corresponds with the *Concept* number. The second digit indicates which activity it is. This column also indicates which *Individualized Learning Guide Sheets* and *Transparency Original Sheets* are used with a particular student activity; (7) Instructor Performance Column – identifies what it is that the instructor will be doing to assist the student in achieving the *Performance Objective*. The number assigned to a specific instructor performance activity will correspond to an appropriate student performance activity; (8) Instructional Programming Column – lists the various instructional materials that a teacher can use to assist the student in learning the particular objective; (9) New Words – identifies the new safety words that are used with a particular *Concept*. This list is intended to enable the teacher to explain the words or substitute the words for something more appropriate. The new words list is not intended to be a spelling list.

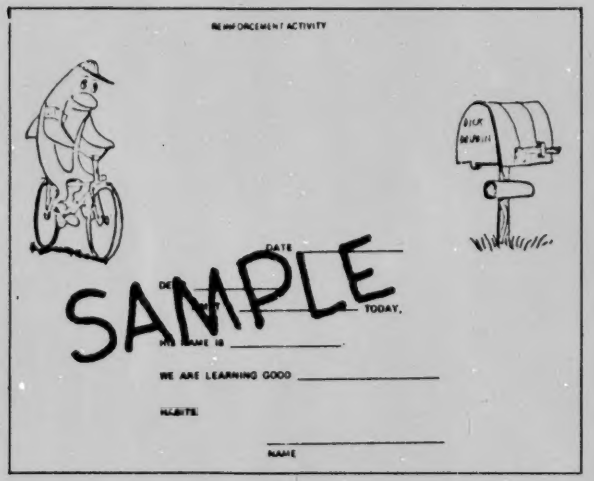


3. INDIVIDUALIZED LEARNING GUIDE SHEETS: *Individualized Learning Guide Sheets* are for use by students. They have been developed specifically to help the student do a particular activity which will allow him to achieve a specified performance objective. *Individualized Learning Guide Sheets* follow the *Format Sheet* that listed it for use as an instructional aid and can be duplicated in quantity.



4. TRANSPARENCY ORIGINAL SHEETS: *Transparency Original Sheets* are designed for reproduction into a transparency that could be used on an overhead projector.

5. REINFORCEMENT ACTIVITY SHEETS: *Reinforcement Activity Sheets* are used to explain ways in which the teacher can enrich or reinforce a learning concept.



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6. APPENDICES: *Appendices* can be found at the back of the booklet and are printed on white paper and lettered. The items found in the appendices are an array of instructional materials that could be utilized by the instructor to enhance the learning process.

Armed with this brief description of the format, we hope you will find that you can more easily use these instructional materials. Best wishes to you in your efforts to promote human preservation.

INSTRUCTOR INFORMATION

Objectives
The overall objective of this integrated approach to traffic safety is to provide a tool for instruction of students in the knowledge and skill needed to cope with the traffic environment. This program maintains a positive approach to safety and presents a "way of life," not restrictive rules in a negative approach.

Integrated
Material has been provided to integrate not add to the already existing elementary program. Although multiple activities are provided a selective approach to relevant needs of your student is encouraged.

Time
A time span is not provided because of variation and need of flexibility for the instructor. Note that format sheets do not dictate time span. The integrated approach cannot be truly utilized if a time span is dictated.

Symbols
Symbols have proven to be effective in our society (i.e., by Smokey The Bear and Woodsey Owl). You are encouraged to use the symbols (Dick Dolphin, Bicyclist; Patty Penguin, Passenger; Seemore Seal, Pedestrian) as a means of communication. The choice of symbols was made because these three animal characters are not likely to appear in an adverse situation, such as dead. Expansion is allowable to other areas of safety endeavor such as water safety. Stylization of the characters in simple lines allows a teacher and student to draw the symbols easily. The symbols are creatures which a student is not taught to stay away from and fear. We hope you will enjoy the menagerie.

Commercial Material
Commercial materials are not emphasised since most items span several grade levels. Below are listed some sources which may be helpful aids.

T–shirts can be ordered in the school's colors with one of the three characters, Dick Dolphin, Patty Penguin, Seemore Seal. Character can be printed on the front or back of shirt. The cost for a minimum of 12 is $27.00 and any over 12 is $2.25 each. Order "Traffic Characters" at The Emporium, address:

Wild West Marketing
2 West Main
Bozeman, MT 59715

State size, color and number requested.

Verses and coloring, levels K–2, request free booklets:

"Children's Safety Lessons"
Kemper Insurance
Long Grove, IL 60049

Large pages for coloring about Montana safety, levels K–2, request "Coloring Book":

Montana Highway Patrol Bureau
1014 National Avenue
Helena, MT 59601

Folder "The ABC's of Bike Riding," levels 1–2. For additional folder subjects write:

Imagination, Inc.
1821 University Avenue
St. Paul, MN 55104

Also "10 Little Bike Riders," small folder of verses.

INFORMATION SHEET

Stories and activities in "Traffic Safety Guide For Teachers," inquire at local AAA office or write:

American Automobile Association
Traffic Engineering and Safety Department
1712 G. Street N.W.
Washington, D.C. 20006

Suitable for levels 1–3.

"The Bike Book" has hints to rider and bikes available, levels 2–5, write and refer to stock No.399.91:

National Safety Council
425 North Michigan Avenue
Chicago, IL 60611

Hints and check list for proper care of bike and rules for more advanced bike drivers, levels 3–5, request "Hi! Bike Pilots!":

Safety Department
Allstate Insurance Companies
Allstate Plaza
Northbrook, IL 60062

3222

Booklet presents compact lesson for bike behavior in cartoon fashion. Write for "Be An Expert Bike Driver," levels 4–6.

Channing L. Bete Co., Inc.
Greefield, MA 01301

Pamphlet to win the State Farm Safe Bicycling Award, levels 4–6, request at local State Farm Insurance Companies or write:

State Farm Insurance Companies
Bloomington, IL 61701

"Five Keys To Safe Bicycling" from the film "The Bicycle Driver" covers five areas to consider for being good drivers. Levels 5–6, request from:

Safeco Insurance Companies
Safeco Plaza
Seattle, WA 98185

Hints to teacher about activities, explains the why for some of the rules, suggestions for involvement, levels 4–6, inquire at local AAA office or write:

American Automobile Association
Safety Department
1712 G. Street N.W.
Washington, D.C. 20006

Request Traffic Safety Guide for Teachers.

General Map Reading Rules and the "how to" of reading maps. Levels 5–6, request Map Reading and Trip Planning Course, product No. 813, Packet of 35, shipping weight 3 lbs., cost $7.95.

Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, MO 63701

A message to Bike Riders and a safety check list, level 6:

The Texas Safety Association
1623 South Lamar Blvd.
Austin, TX 78704

For Level 6, a Bicycle Safety Information Test and Answer Sheet to be used as an aid to learning, request from:

School and College Department
National Safety Council
425 North Michigan Avenue
Chicago, IL 60611

Highlights for assisting you in the care and operation of your 10 or 5 speed bicycle. Level 6, request Schwinn Care and Operation Check List:

Schwinn Bicycle Co.
1856 North Kostner Avenue
Chicago, IL 60639

General information for all levels available from:

Scott, Foresmen and Company
855 California Avenue
Palo Alto, CA 94394 (large poster with traffic signs and problem solving method);

Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, Mo 63701
(catalog for traffic education);

Kemper Insurance
Long Grove, IL 60049
(booklets);

Texas Safety Association
1623 South Lamar Blvd.
Austin, TX 78704
(general information);

Bicycle Institute of America
122 East 42nd Street
New York, N.Y. 10017
(statistics and information)

Insurance Institute for Highway Safety
1725 DeSales Street, N.W.
Washington, D.C. 20036
(general information).

Ideas

Additional popular ideas, gleaned from pilot schools, include making booklets with the Individualized Learning Guides, displaying posters in the school and in the community, and having upper grade students teach concepts to lower grade levels. Ideas contributed by teachers are incorporated in appropriate sections.

Film Library

Request all film through the Montana Audiovisual Library, Office of the Superintendent of Public Instruction, Helena, MT 59601, by title and number. Read film description and date film developed to assure current and relevant information is used.

Reinforcement Activities

Reinforcement activities to enrich and reinforce concepts are included for your selective use.

Problem Solving Method

A systematic process of identifing, predicting, deciding and acting, when confronted with a potentially dangerous situation, is essential to a student. A student must first identify the hazard, predict what will occur if certain actions are taken or not taken and then by calling on stored memory of past experience or knowledge, correctly decide on an appropriate action. Finally, he must act or react to successfully manage the encounter. These situation occur as a student crosses intersections, rides in the family car or on the school bus. They occur in the school and home environment, on the playground, and when riding bicycles or motor equipment.

Although information is received through all of the senses the greatest percent is preceived through vision. It is therefore essential to teach perception.

Visual perception is identifing, "mental decoding" of the information is predicting and deciding, then appropriate action can be taken.

In the early grade levels predicting is a difficult concept but not impossible. For some students identify, decide and act will provide a short version of the process.

Survival in many situations can depend on a problem solving method and it is the responsibility of the instructor to provide methods to the students. IPDA is a viable method in traffic education as well as in simple decisions.

Helpful aid: "Problem Solving In Everyday Safety"
A 92 transparency program in nine teaching units on Safety Education. Teaches safety consciousness as a frame of mind and mode of behavior. Most important the student is the one who arrives at the solution because he solves the problem himself. Distributed by:

Bumpa-Tel, Inc.,
P.O. Box 611
Cape Girardeau, MO 63701
Cost: $99.95 for complete set.

Montana Motor Vehicle Code "Rules of the Road" that affect bicyclists as of July 1, 1974 are listed below.

32–2184. EFFECT OF REGULATIONS. (a) It is a misdemeanor for any person to do any act forbidden or fail to perform any act required in this article (32–2184 to 32–2190).

(b) These regulations applicable to bicycles shall apply whenever a bicycle is operated upon any highway or upon any path set aside for the exclusive use of bicycles subject to those exceptions stated herein.

32–2185. TRAFFIC LAWS APPLY TO PERSONS RIDING BICYCLES. Every person riding a bicycle upon a roadway shall be granted all of the rights and shall be subject to all of the duties applicable to the driver of a vehicle by this act, except as to special regulations in this article (32–2184 to 32–2190) and except as to those provisions of this act which by their very nature can have no application.

32–2186. RIDING ON BICYCLES. A person propelling a bicycle shall not ride other than upon or astride a permanent and regular seat attached thereto.

32–2187. CLINGING TO VEHICLES. No person riding upon any bicycle, coaster, roller skates, sled, or toy vehicles shall attach the same or himself to any vehicle upon a roadway.

32–2188. RIDING ON ROADWAYS AND BICYCLE PATHS. (a) Every person operating a bicycle upon a roadway shall ride as near to the right side of the roadway as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction.

(b) Persons riding bicyles upon a roadway shall not ride more than two (2) abreast except on paths or parts of roadways set aside for the exclusive use of bicycles.

(c) Whenever a usable path for bicycles has been provided adjacent to a roadway, bicycle riders shall use such path and shall not use the roadway.

32–2189. CARRYING ARTICLES. No person operating a bicycle shall carry any package, bundle, or article which prevents the driver from keeping at least one (1) hand upon the handle bars.

32–2190. LAMPS AND OTHER EQUIPMENT ON BICYCLES. (a) Every bicycle when in use at nighttime shall be equipped with a lamp on the front which shall emit a white light visible from a distance of at least five hundred (500) feet to the front and with a red reflector on the rear of a type approved by the board which shall be visible from all distances from fifty (50) feet to three hundred (300) feet to the rear when directly in front of lawful upper beams of head lamps on a motor vehicle. A lamp emitting a red light visible from a distance of five hundred (500) feet to the rear may be used in addition to the red reflector.

(b) Every bicycle shall be equipped with a brake which will enable the operator to make the braked wheels skid on dry, level, clean pavement.

Be sure to check city ordinances for local laws.

Bicycle Size

For safety, a student's bicycle must be the right size. If the bike is too large or too small, it will be hard to control and will make the rider tired much more quickly.

If the bicycle is too large, it will sway from side to side and the rider can't come to a stop without leaning to one side. If it is too small, the rider will bump his knees and the bike will be difficult to steer.

Also, bicycling is easier and more fun if the leg muscles can be flexed fully. The muscles won't tire as easily as when the muscle doesn't get fully extended.

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Measure the distance from the child's crotch to the floor while wearing flat heeled shoes to see what size bike a child needs. If the leg length is between 29½ and 35 inches, a 19" frame is recommended. From 35" to 38", a 23" or 24" frame is recommended. Above 38", an adult's bike (26" or more) can be ridden.

When buying a bike, one should also check for accessories. The reflector should be seen from at least 300 feet. The front light should be white and be visible at least 500 feet away. The horn or bell should be audible at least 100 feet away. There should be a carrier or basket according to needs. There should be a mud guard and a proper chain guard.

Stopping

Bicycles equipped with front wheel caliper brakes, common for high rise bicycles, can be stopped in a shorter distance than bicycle with rear coaster brakes, typical of conventional models. The data available indicates that with caliper brakes, stopping distances increase with rider weight. No such variation is found with coaster brakes. Rear coaster brakes and rear caliper brakes are equally effective in panic stops.

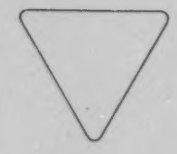
Generally, hard rear wheel braking is much more easily handled by the experienced driver than front wheel braking.

When the operator stands upright on the pedals, hard front wheel braking can lead to forward pitch-over of the rider. When this occurs, the motion is so rapid that there is little that the unsuspecting rider, even a very experienced one, can do to avoid a bad fall. Findings show that as long as the rider remains seated, on either type of bicycle, a potentially injurious pitch-over could not be induced with either bicycle. On dry, level asphalt, the test rider was able to make both bicycles pitch-over by standing on the pedals and applying hard front wheel braking. On a polished concrete surface, only the high rise bicycle could be made to pitch-over.

The bicycle must have a brake that takes hold quickly and makes the rear wheel skid on a dry, clean, level pavement. The arm of the coaster brake must be firmly attached to the frame; otherwise, braking power is lost. The brake pads on bicycles should be inspected weekly for wear and proper positioning. Brake cables should be checked for wear, fraying, and binding. Caliper brakes lose their efficiency when wet. Extreme caution must be exercised when riding in wet weather or in areas where heavy dew or puddles might wet the pads and rims.

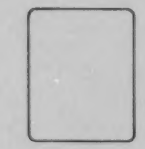
Traffic Control Signs

STOP – Means stop. It is a white message with white border on red background. The sign is octagon in shape.



YIELD – Means slow to 15 mph or less and proceed with caution. The YIELD sign is a downward pointing, equilateral triangle having a red border band leaving a white interior with the word YIELD in red inside the border band.

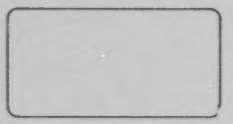
WARNING – Means danger ahead, proceed with caution. Coloring is traditionally black on yellow and the shape is diamond.



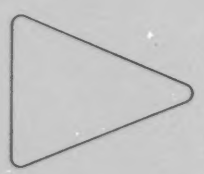
REGULATORY – Contains a specific instrution to the driver. The signs are rectangular with black lettering on a white background.

RAILROAD – Means a railroad intersects the path. The highway sign is yellow with black lettering and a black crossbuck. The railroad crossing sign is a white crossbuck with black lettering.

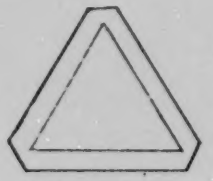
SCHOOL CROSSING – Means a crossing near a school. The signs are pentagon shaped, yellow in color with a black border band, lettering and figures. The school crossing sign has the figures walking within a crosswalk while the advance warning sign has just the figures.



GUIDE – Provides information. It is green with a white border band and lettering. For most guide signs the legend is so variable that there can be no rigidly standardized size.



NO PASSING ZONE – Identifies the conventional no passing pavement markings. The sign is pennant in shape and has black lettering and border band on a yellow background.



SLOW MOVING VEHICLE – The vehicle operates at 25 mph or less. It has a triangular shape with a wide red border band, orange interior and no lettering.

Standard Colors

RED: Stop or prohibition. GREEN: Indicated movements permitted, direction guidance. BLUE: Motorist services guidance. YELLOW: General warning. BLACK: Regulation. WHITE: Regulation. ORANGE: Construction and maintenance warning. BROWN: Public recreation and scenic guidance.

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Traffic Control Signals

Each traffic signal has a specific meaning for the bicycle operator.

GREEN LIGHT – indicates that the bicyclist may proceed if the way is clear.

RED LIGHT – indicates that the bicyclist is to stop.

YELLOW LIGHT – is a caution light indicating that the bicyclist is not to proceed through the intersection until the light turns green, unless already in or very near to the intersection when the light turned yellow.

GREEN ARROW – indicates that the bicyclist may proceed cautiously in the direction that the arrow is pointing.

FLASHING RED LIGHT – indicates that the bicyclist is to come to a complete stop and then proceed if the way is clear.

FLASHING YELLOW LIGHT – indicates that the bicyclist is to reduce his speed and then proceed with caution.

Traffic Control Markings

Markings have definite and important functions to perform in a proper scheme of traffic control. In some cases, they are used to supplement the regulations or warnings of other devices such as traffic signs and signals.

Pavement markings have definite limitations. They are obliterated by snow, may not be clearly visible when wet, and may not be very durable when subjected to heavy traffic.

Longitudinal pavement marking color use is as follows: Yellow lines delineate the seperation of traffic flows in opposing direction or mark the left boundary of the travel path at locations of particular hazard. White lines delineate the seperation of traffic flows in the same direction. Red markings delineate roadways that shall not be entered or used by the viewer of those markings.

Broken lines are permissive as opposed to solid lines being restrictive in character. Width of lines indicates the degree of emphasis. Double lines indicate maximum restrictions.

Curbs painted red or yellow indicate no parking.

Horizontial pavement markings serve as a guide for pedestrians. At non-intersectional locations, these markings legally establish the crosswalk. Horizontal line may also indicate a stop line to the bicyclist.

Other markings may indicate a railroad crossing, directional arrows and word markings.

Hand Signals

The use of hand signals now is commonly accepted as a safe riding practice. The motor vehicle laws of Montana require such signals. Signaling intention to turn, slow down, or stop gives the motorist behind, as well as the one approaching, an opportunity to anticipate the cyclist's movement. The bicycle operator should signal well in advance so that both hands are on the handlebars when the maneuver is made. This is especially important when the bicycle is equipped with hand brakes. Since all signals are made with the left hand, it is important that the control for the rear brake is located on the right handlebar. It is a simple matter to switch the brake control if necessary. Unless local regulations differ, standard hand signals are as follows: Left turn–hand and arm extended horizontally; Right turn–hand and arm extended upward; Stop and/or slow–hand and arm extended downward.

In order to turn left at intersections in the business area or where there is heavy or high-speed vehicular traffic, a bicyclist should dismount and follow the pedestrian crosswalk to the far right corner, then proceed across at right angles. In this way, he crosses one direction of traffic at a time. He should avoid heavily traveled routes if others are available. If riding on the sidewalk is allowed by ordinance, or if the driver is too young to be allowed in traffic, care should be taken when riding on the sidewalk to avoid striking or alarming pedestrians.

Skills

It is imperative that the cyclist develop skill in balancing and pedaling to avoid swerving into traffic, running off the edge of a sidewalk or highway, and to avoid hitting a pedestrian or fixed object at a narrow passing. Parents have a responsibility to be sure the child has the skill to cope with traffic before permitting him to drive on the street. Learners should be taught to coast with the pedals level (horizontal) in readiness to apply the brakes, and to avoid scraping the lower pedal on turns.

When overtaking slow moving vehicles, a cyclist must be careful to avoid being struck or crowded by vehicles about to turn into a driveway or alley. The cyclist must be especially alert, when passing parked cars, for doors which might be opened in his path.

Parked cars with someone in the driver's seat should be given as wide a berth as possible. A cyclist should never ride into the roadway from the yard, driveway or alley without looking carefully in all directions.

It is highly desirable to remain inside the car during an automobile collision. Not so with a bicycle. The rider has to free himself from the bicycle immediately when a collision appears imminent. Design features that can be impacted by the rider or hinder his ability to free himself, such as high rise handlebars and gear-shift levers, should be avoided. The horizontal frame member in front of the rider on all boys' bicycles tends to make it more difficult for the rider to free himself from the bike. Therefore, learners and novice riders should use girls' style bicycles since they are easier to dismount in case of a collision.

Carrying more passengers than the bicycle is designed and equipped for is dangerous. Passengers obstruct the driver's vision, make balancing difficult, and increase the danger of getting part of the body or clothing caught in the spokes. Two on a bicycle also greatly increases the stopping distance. The "polo" or "banana" seat on the high rise bicycle appears to be designed to carry two; however, such is not the case.

All human activity involves a degree of risk. What becomes important then is instilling in student a personal and social attitude toward their choices of action in traffic interaction. For this reason, at every age, the students are encouraged to consider the consequencies.

The primary consideration becomes how much risk a person is ready to accept in his life style.

Intersections

CONTROLLED – (a) If more than one vehicle operator arrives at a four-way stop at the same time, give the driver on the right the right-of-way, but only after they have come to a full stop. Courtesy dictates which driver proceeds.

(b) If only one of the crossroads has a stop sign, the driver in that lane must stop, then yield to all other vehicles and pedestrians.

(c) If there is a red light or stop sign, the bicyclist should stop behind the white line or marked or unmarked crosswalk.

UNCONTROLLED – (a) When two bicyclists arrive at an uncontrolled intersection at about the same time, the bicyclist on the left must yield the right-of-way to the driver on the right.

(b) The bicyclist should never enter the intersection until it is safe to enter.

(c) The bicyclist should yield the right-of-way to pedestrians that are in the crosswalk.

(d) The bicyclist should never make a turn in front of a moving vehicle.

Facts

For the five years, 1965-69, only one year,1967, shows an even division between urban and rural areas for bicycle-motorcar fatalities; for the other four years, somewhat more than half occurred in rural areas (defined as having less than 2,500 inhabitants, except those areas classified "urban" by the U.S. Census Bureau).

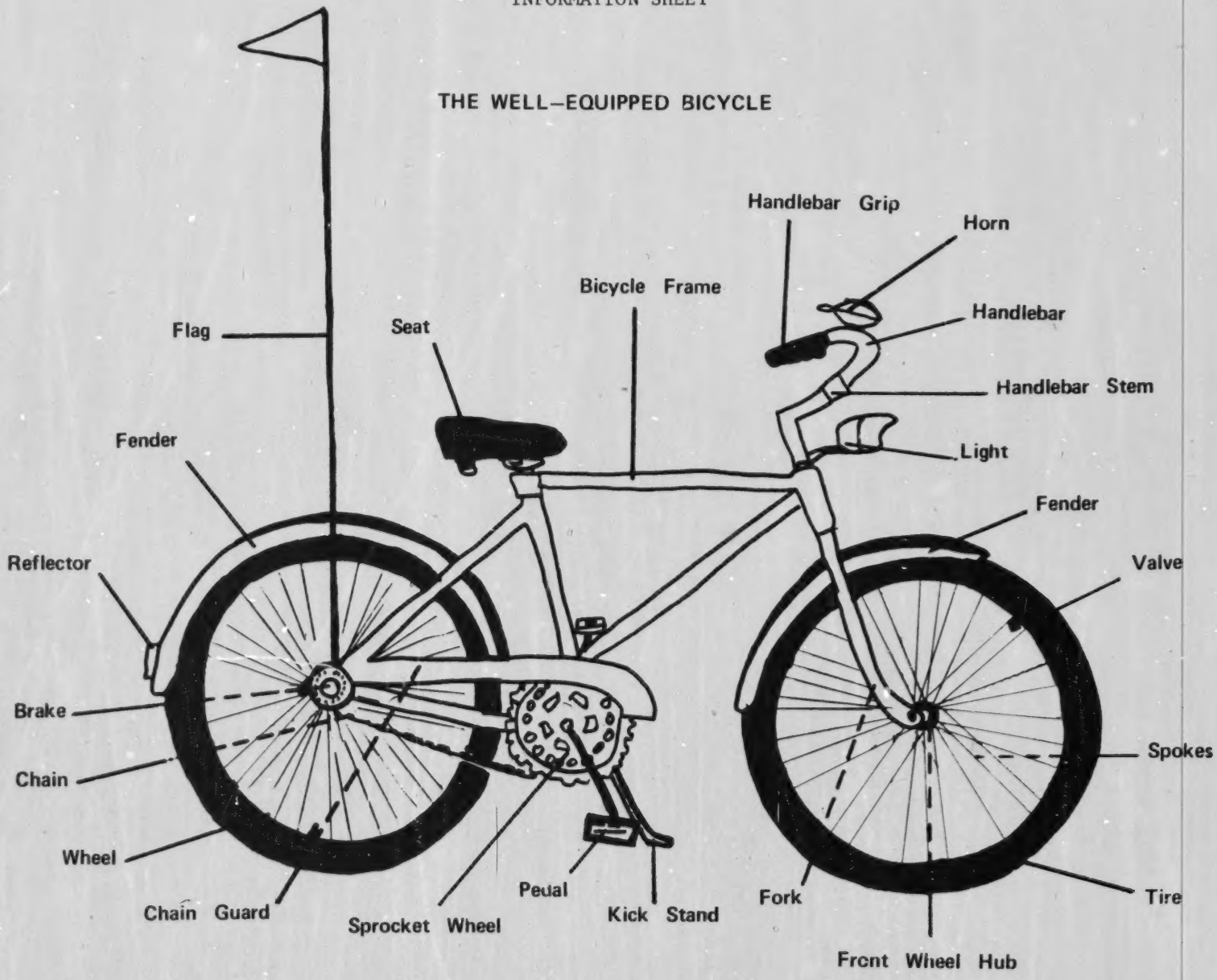
Nonfatal accidents are more likely to occur in residential areas (city streets), while fatal accidents are most likely to occur in open country (major and minor roads). This is probably related to the higher speeds of motorcars outside the city or town. Compared with all fatal motor vehicle accidents, fatal bicycle accidents show a larger proportion occurring where there is some kind of intersection of vehicle pathways. This is also true of nonfatal accidents.

One study found 96% of all bicycle-motorcar collisions occurred within one mile from home, and 57% within one block; also, intersections of some kind were the most frequent site of collisions: ". . . 82% of collisions relate to maneuvers by the bicyclist to enter into, to turn across, or cross through a flow of traffic."

In two studies, about 40% of the cyclists of grade-school age, said they ride on the right side of the street, 40–50% said they ride on both sides, and 10–15% said they ride on the left side. Some ride on the sidewalk. Apparently, there is some confusion, lack of knowledge, or disregard with respect to rules and regulation of safe operating procedures.

*Bicycle fatalities will exceed 10,000 in 1974.
*Ninety-percent of bicyclist fatalities due to bicycle-car collisions are males.
*In a study of 275 collisions with cars, 93% involved male bicylcists.
*In a 5 year study, over 60% of the bicycle-car fatalities and 75% of the injuries were in the age group of five through fourteen.
*After school and early evening hours are the peak periods for collisions.
*In a great number of bicycle-car collisions, the driver of the car is not cited for a violation.
*Twenty-percent of the bicycle collisions with cars involved a passenger or a hand-held load.
*It has been pointed out, many bicyclists were not riding their own bicycle.

THE WELL–EQUIPPED BICYCLE



PRE/POST SELF ASSESSMENT GRADE FOUR PRE ASSESSMENT _____

STUDENT _____ POST ASSESSMENT _____

Explanation: This Pre/Post Self Assessment is suggested for use at the beginning and/or end of this learning unit. Consider placing assessment on tape for student to assess and help him understand new terms.

Directions: Write the answer **YES** or **NO** in the space provided.

_____ 1. Always drive bicycles with the traffic.

_____ 2. Bicycle drivers are to use the same traffic rules as the automobile driver.

_____ 3. There are four standard hand signals to use when slowing, stopping or turning.

_____ 4. A bicycle always has the right-of-way over the pedestrian.

_____ 5. Bicycle drivers should obey all traffic lights.

_____ 6. The bicycle is a vehicle.

_____ 7. A bicyclist should drive on the right side of the street and in single file.

_____ 8. When making a left turn, the cyclist should place his right arm straight out from the shoulder.

_____ 9. Never pass another vehicle going in the same direction on a hill or curve.

_____10. It is right to pass another vehicle at an intersection.

_____11. A bicyclist should be on the lookout for moving cars when crossing in front of alleys, filling stations, and garage doors.

_____12. Dusk is the most dangerous time to drive a bicycle.

_____13. A safe bicycle is one that is in good mechanical condition, the correct size for the driver and properly adjusted.

_____14. Stop means slow down at an intersection.

Fill in the letter of the correct answer.

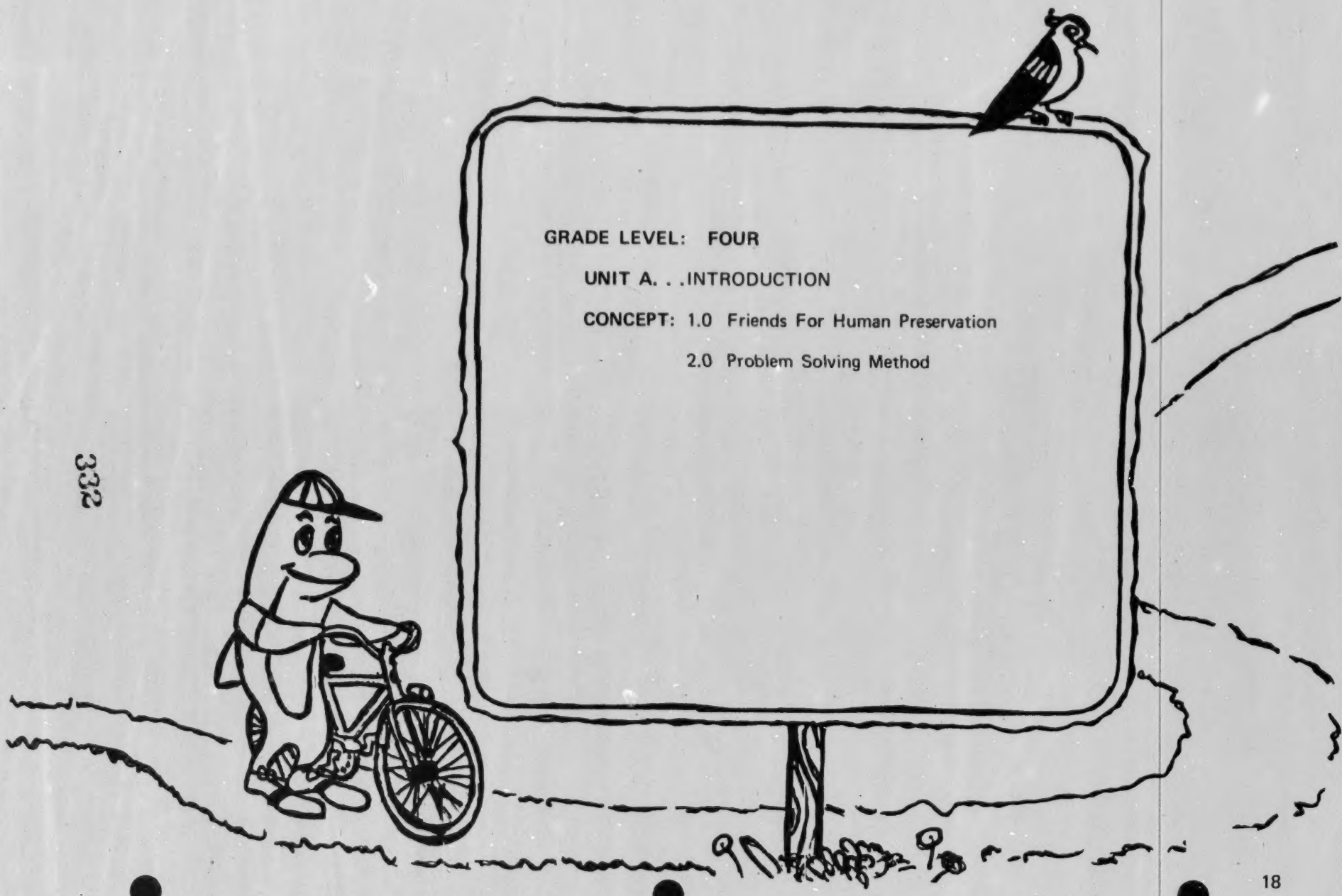
_____15. The red light means
A. slow down. B. stop. C. go.

_____16. The diamond shaped sign means
A. ride with caution. B. speed up. C. stop.

_____17. A round shaped sign means
A. a railroad crossing. B. yield.
C. men working.

Answers:

1.	yes	5.	yes	9.	yes	13.	yes	17.	A.
2.	yes	6.	yes	10.	no	14.	no		
3.	no	7.	yes	11.	yes	15.	B.		
4.	no	8.	no	12.	yes	16.	A.		



GRADE LEVEL: FOUR

UNIT A. . .INTRODUCTION

CONCEPT: 1.0 Friends For Human Preservation

2.0 Problem Solving Method

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MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four

Applied Instruction: Language Arts
Social Studies

UNIT A. . .INTRODUCTION

CONCEPT: 1.0 Friends For Human Preservation

PERFORMANCE OBJECTIVE: The student will know the purpose of the friends for human preservation.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 7	1.1 Instructor/student discuss the purpose of the friends for human preservation.	1.1 Student tells about the purpose of the friends for human preservation.
	1.2 Instructor/student discuss each of the friends' activity in human preservation.	1.2 Student picks out which friend for human preservation is a symbol for what activity. Transparency Original No. 1
Student Material Transparency Original No. 1		
Reinforcement Activity Large symbols of other animals could be displayed.		

NEW WORDS: human, preservation, symbol, bicyclist, passenger, pedestrian

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TRANSPARENCY ORIGINAL No. 1

HERE ARE MONTANA'S FRIENDS FOR HUMAN PRESERVATION SYMBOLS. THEY WILL SHARE WITH YOU THE THINGS TO KNOW AS A BICYCLIST, A PASSENGER, AND A PEDESTRIAN.

SEEMORE SEAL, PEDESTRIAN

DICK DOLPHIN, BICYCLIST

PATTY PENGUIN, PASSENGER

WHAT DOES SYMBOL MEAN?

WHAT OTHER SYMBOLS CAN YOU THINK OF?

WHAT DOES HUMAN PRESERVATION MEAN?

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MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four

Applied Instruction: Social Studies
Science

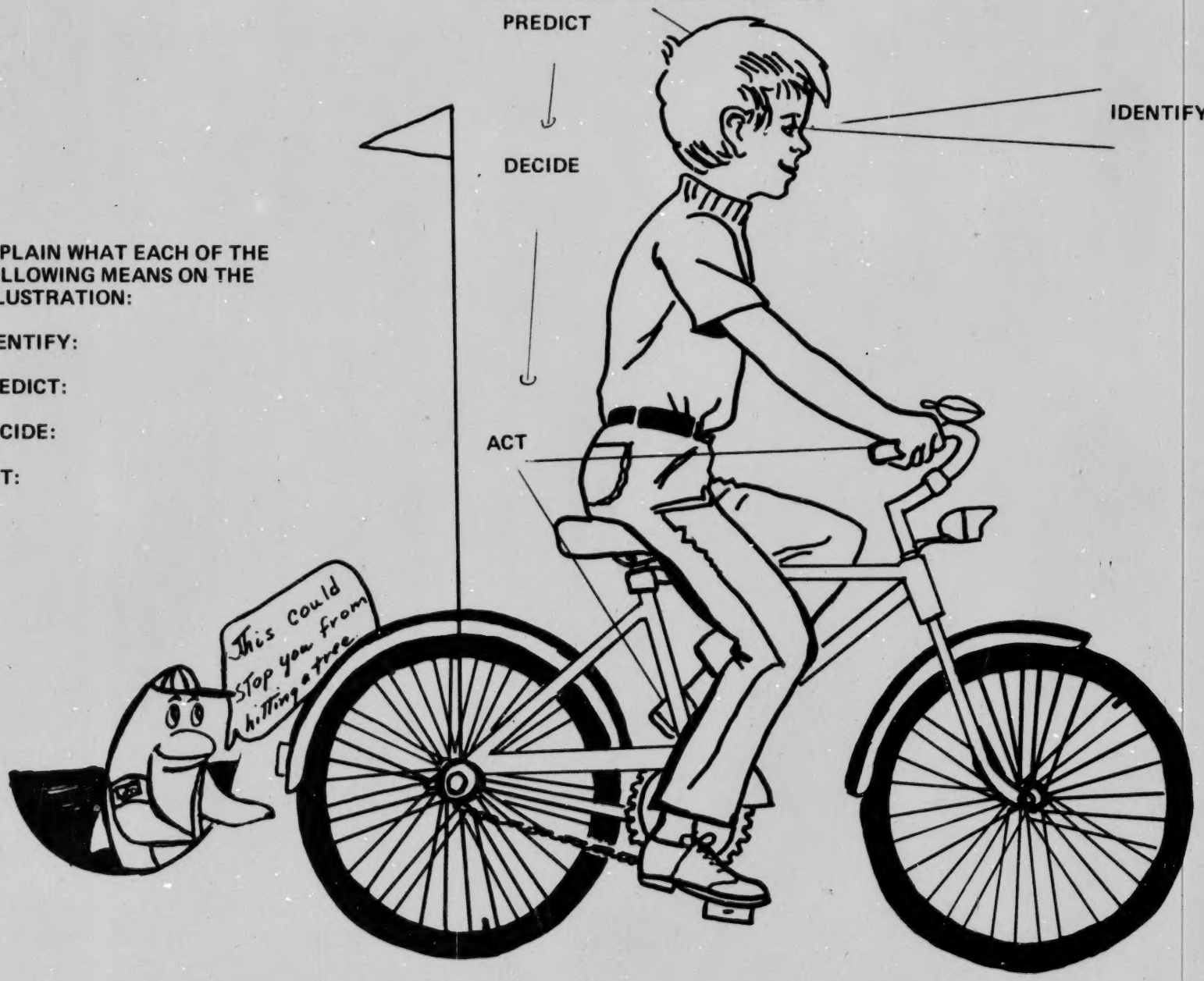
UNIT A. . .DECISION MAKING PROCESS

CONCEPT: 2.0 Problem Solving Method

PERFORMANCE OBJECTIVE: The student will evaluate the human functions and determine purpose in the problem solving system.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: The basic system for every action is to: IDENTIFY the hazards. PREDICT what can happen. DECIDE what to do. ACT immediately and effectively Information Sheet, page 9	1.1 Instructor explains the human behavior functions in decision making: a. identify b. predict c. decide d. act	1.1 Student evaluates the human functions of identify, predict, decide and act, then discuss their implication in operating situations. Individualized Learning Guide No. 2 & 3
	1.2 Instructor explains the six operator tasks of operating a bicycle: a. basic control b. roadway assessment c. traffic assessment d. environment assessment e. vehicle assessment f. coping with mishaps	1.2 Student evaluates the six operator tasks and determines the factors which comprise each task.
Student Material Individualized Learning Guide No. 2 & 3	1.3 Instructor will show student how effective visual search can influence proper decisions and prevent collision.	1.3 Student understands the importance of visual search.
Reinforcement Activity One person names a task and ask another for the function. If the answer is correct then the turn to ask the question reverses.		

NEW WORDS: prevent, assessment, cope (coping), visual search



EXPLAIN WHAT EACH OF THE FOLLOWING MEANS ON THE ILLUSTRATION:

IDENTIFY:

PREDICT:

DECIDE:

ACT:

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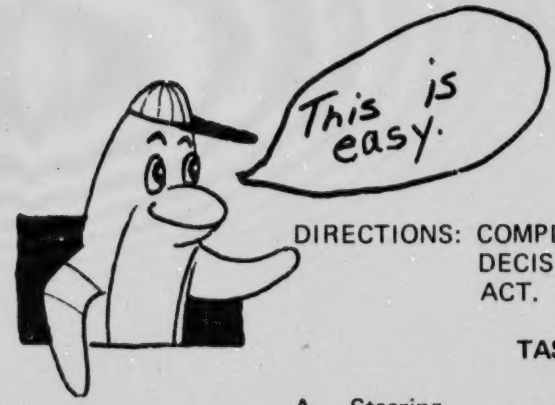


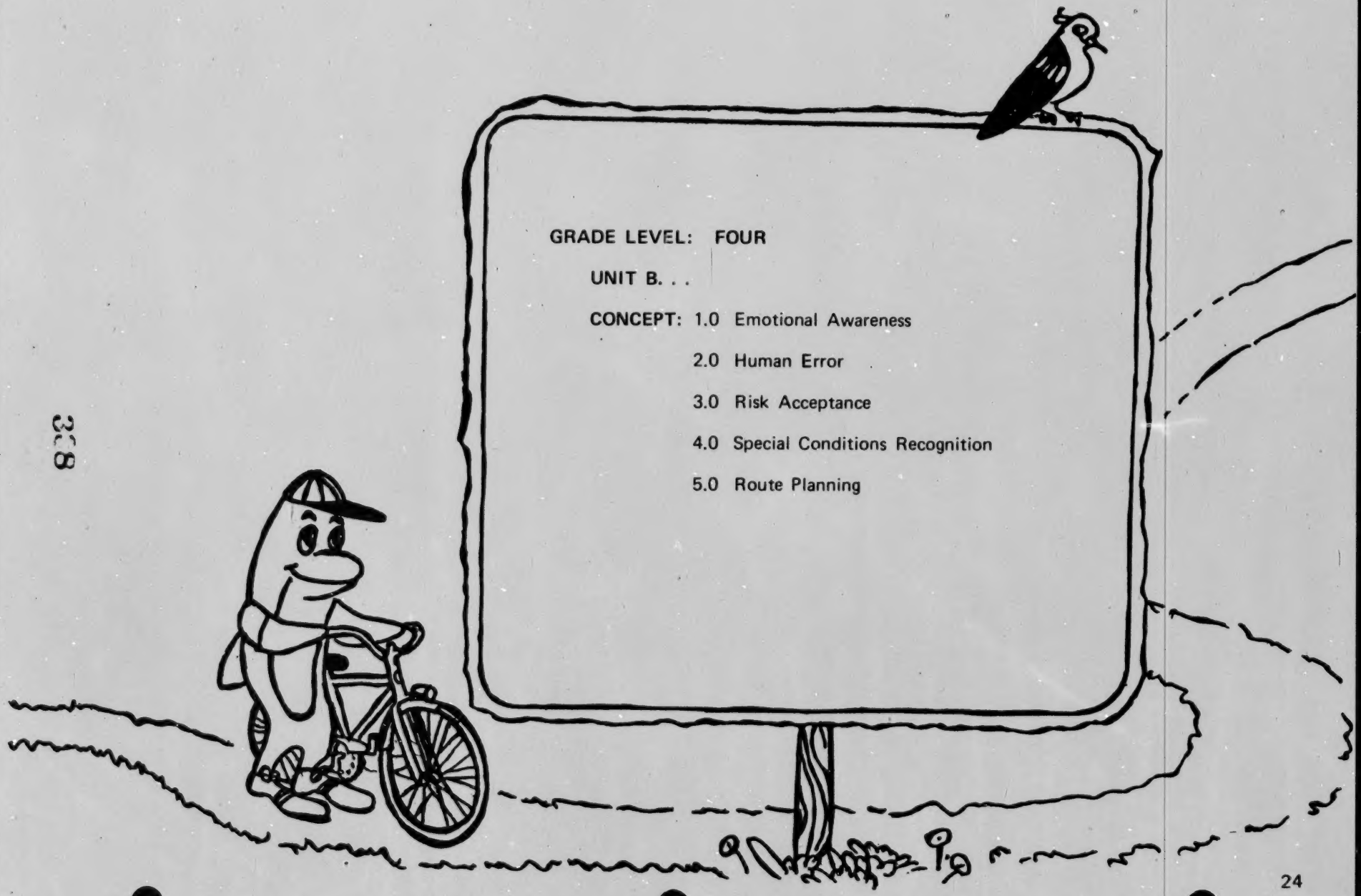
DIRECTIONS: COMPLETE THE RIGHT SIDE OF THE SHEET BY LISTING ON OF THE DECISION MAKING FUNCTIONS USED: IDENTIFY, PREDICT, DECIDE, ACT.

TASK	FUNCTION
A. Steering	
B. Braking	
C. Traffic check	
D. Determine what action to take	
E. Speed up	
F. Direction an animal may move	

IN THE FOLLOWING SITUATIONS HOW WOULD YOU USE THE DECISION MAKING SYSTEM?

1. Late at night a vehicle is approaching in your lane.

2. A ball rolls from between two parked cars.


GRADE LEVEL: FOUR
UNIT B. . .
CONCEPT: 1.0 Emotional Awareness
2.0 Human Error
3.0 Risk Acceptance
4.0 Special Conditions Recognition
5.0 Route Planning

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four

Applied Instruction: Health
Social Studies

UNIT B. . .DECISION MAKING PROCESS

CONCEPT: 1.0 Emotional Awareness

PERFORMANCE OBJECTIVE: The student will recognize the affect of emotions on operating a bicycle.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Magazine	1.1 Instructor assists student in formulating a list of emotions which affect the operating task; i.e., fear, anger, frustration, impatience, etc.	1.1 Student lists four basic emotions which are a part of operating a bicycle.
	1.2 Instructor conducts a discussion of how emotions of various types affect the operating task, using specific situations such as: a. argument with parents b. fight with a friend c. impatience	1.2 Student relates two examples of how each emotion affects the operating task.
	1.3 Instructor assists student with problem solving of emotional problems.	1.3 Student identifies techniques of emotional control.
Student Material Magazine		
Reinforcement Activity Advertisements appeal to the emotions and demonstrate what emotion causes purchase of a product.		

NEW WORDS: frustration, impatience, emotion

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four

Applied Instruction: Health
Social Studies
Language Arts

UNIT B. . .DECISION MAKING PROCESS

CONCEPT: 2.0 Human Error

PERFORMANCE OBJECTIVE: The student will be aware of the human error factor in bicycle collisions.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Newspaper Information Sheet, page 14	2.1 Instructor/student discuss human error and its effect on bicycle operation.	2.1 Student to determine human error awareness through interviews of members of the family and neighbors. Individualized Learning Guide No. 4
	2.2 Instructor/student discuss and list causes of human error: a. fatigue b. physical fitness c. poor visual perception d. hearing loss e. showing off f. wearing apparel g. operating knowledge h. being seen i. ignorance of traffic flow j. attitude k. inattention	2.2 Student becomes aware of causes of human error.
Student Material Individualized Learning Guide No. 4		
Reinforcement Activity Newspaper accounts of collisions analysis by the class for human error causes.		

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NEW WORDS: fatigue, perception, ignorance, error, awareness

DO ADULTS KNOW THE HUMAN FACTORS IN BICYCLE COLLISIONS? LET'S ASK THEM TONIGHT!

HOW MANY THINGS CAN YOU THINK OF THAT A BICYCLE OPERATOR DOES THAT MIGHT CAUSE HIM TO HAVE A COLLISION??

1. _____

_____

2. _____

_____

3. _____

_____

4. _____

_____

5. _____

_____

6. _____

_____

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four

Applied Instruction: Social Studies

UNIT B. . .DECISION MAKING PROCESS

CONCEPT: 3.0 Risk Acceptance

PERFORMANCE OBJECTIVE: The student will understand risks involved when operating a bicycle.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 14	3.1 Instructor identifies, by questions, risks taken by a bicycle operator: a. riding double b. holding onto moving vehicles c. crowding between cars at stop sign d. crowding between cars and curbs e. riding into roadways from an alley, yard or driveway f. improper parking of the bicycle g. carrying packages h. not following traffic rules i. stunt riding j. improper clothing k. jumping from bicycle when appears imminent l. taking feet off pedals m. riding without shoes n. riding into a chuck hole	3.1 Student lists possible consequences of risk acceptance as a bicycle operator.
Reinforcement Activity Interview a car or bus driver to determine what risk they accept when operating a car or bus. Students can interview their parents or their bus driver.		

NEW WORDS: imminent, risk, consequences, berth

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four

Applied Instruction: Social Studies
Health

UNIT B. . .DECISION MAKING PROCESS

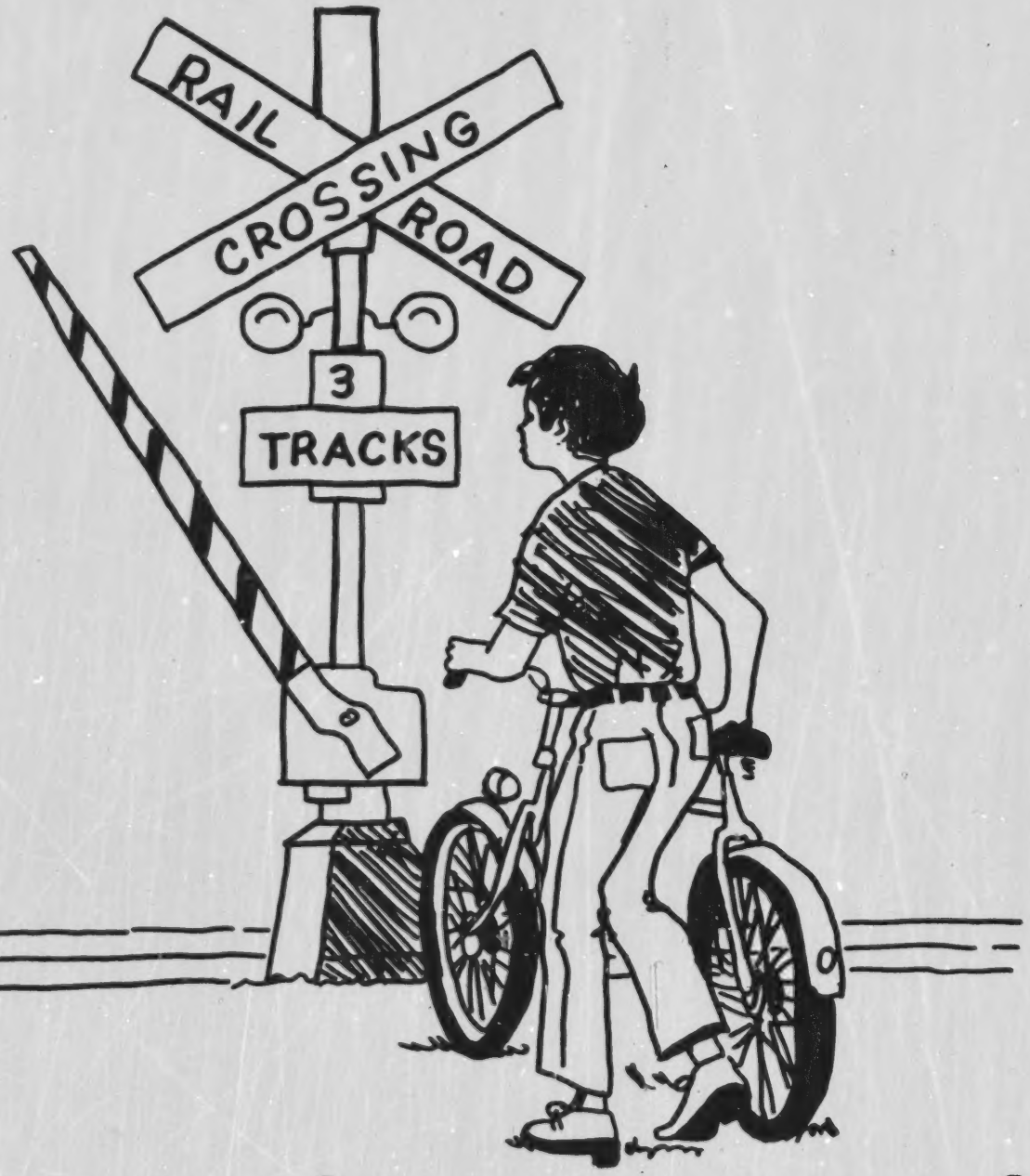
CONCEPT: 4.0 Special Conditions Recognition

PERFORMANCE OBJECTIVE: The student will identify hazards of railroad crossings, bridges, wind, dust, construction areas and night riding hazards.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 11 **Student Material** Transparency Original No. 5 & 6 **Reinforcement Activity** Special conditions exist in the school area and in weather conditions which can be discussed as effecting bicycle operation.	4.1 Instructor illustrates with a diagram the proper method of: a. railroad crossing—should be approached cautiously and crossed at as near a right angle as possible. It is safest to walk the bicycle when crossing two or more tracks. b. bridges—walk the bicycle near to the right side of the bridge and cross quickly. c. wind and dust—discuss more balance control and limited vision problems. d. construction areas—illustrate possibilities of open ditches, heavy equipment in operation, flag persons and other hazards. e. night operation—discuss proper reflectors and lights for safe night riding.	4.1 Student will use the human problem solving method of identify, predict, decide and act to cope with hazards. Transparency Original No. 5 & 6

NEW WORD: right angle

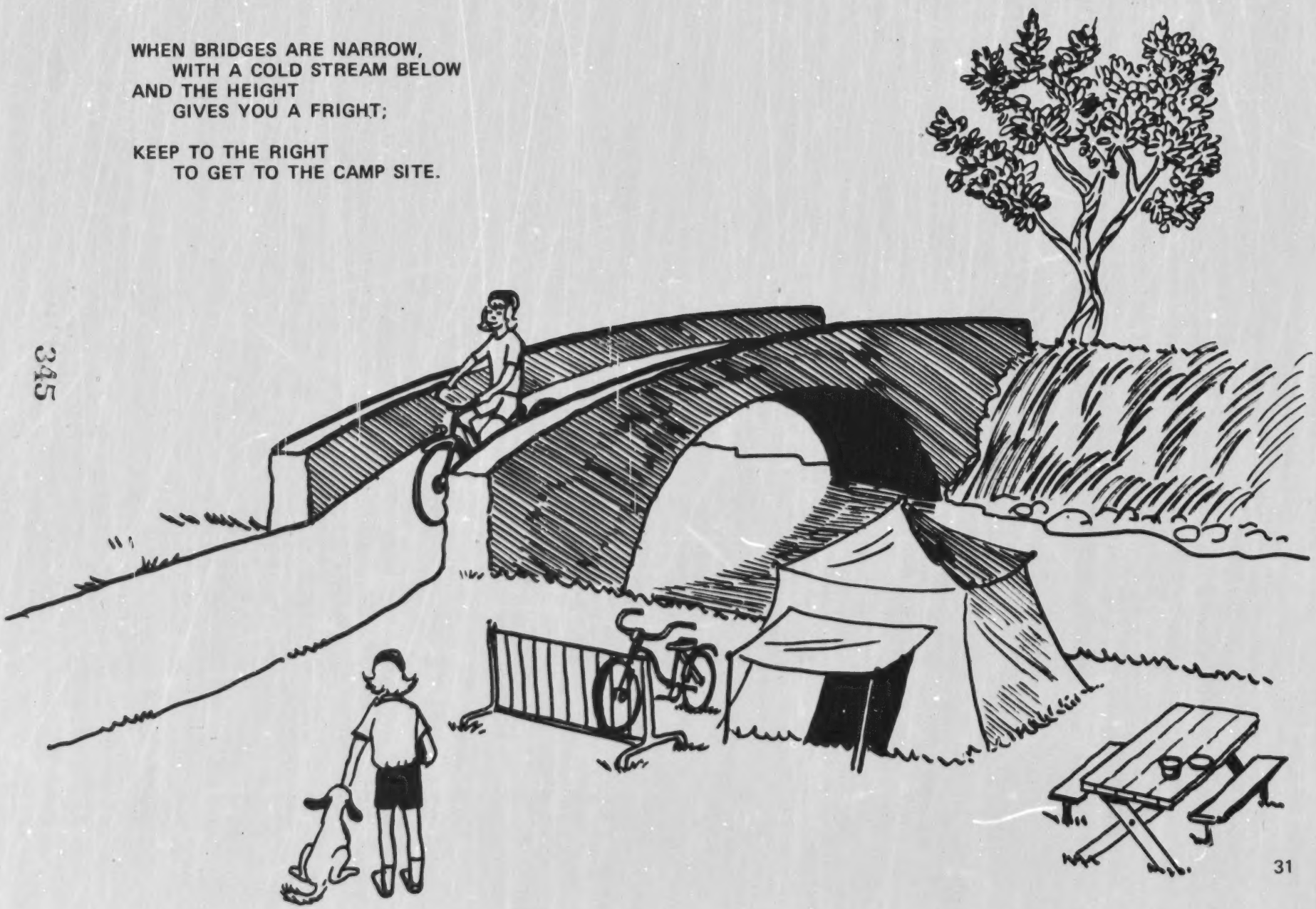
TRANSPARENCY ORIGINAL No. 5



WHEN RAILROAD CROSSINGS ARE
MORE THAN TWO TRACKS WIDE,
I'D BE BETTER OFF TO WALK
MY BICYCLE INSTEAD OF RIDE.

WHEN BRIDGES ARE NARROW,
WITH A COLD STREAM BELOW
AND THE HEIGHT
GIVES YOU A FRIGHT;

KEEP TO THE RIGHT
TO GET TO THE CAMP SITE.



MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four

Applied Instruction: Physical Education
Math
Science
Social Studies

UNIT B. . .DECISION MAKING PROCESS

CONCEPT: 5.0 Route Planning

PERFORMANCE OBJECTIVE: The student will plot trips emphasizing time requirements, precise routes and appropriate equipment for bicycle trips.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: Gas companies, automobile associations and travel agencies provide prepared maps and routes outlined and information on road construction, places to visit, food and lodging. Maps and services are free but time must be allowed for preparation and receipt of these packets. Information Sheet, pages 12-16 Film: "Bicycle Safety" No. 2795 "You and Your Bicycle" No. 2184 Section given to upper level instructor. **Student Material** Transparency Original No. 7 Individualized Learning Guide No. 8 **Reinforcement Activity** Sponsor a bike inspection, details in the appendix in "Bike Festival" section. Apendix K-S.	5.1 Instructor introduces the unit with the following questions: **Trigger Questions** a. What preparation is necessary for this trip? b. What type of trip are you going on: for fun or to get something done? 5.2 Instructor selects a point, as student refers to a map, or origin and destination. Students study the map, become familiar with its symbols and determine alternate and safest routes (fewest predictable hazards). 5.3 Instructor suggests that a selected speed may not guarantee arrival in specific time. Trip time must be extended when slow downs or delays are anticipated. Instructor leads discussion of the influence of delays upon operator behavior: a. Operates too long. b. Operates too fast for conditions. c. Gets insufficient rest. d. Bypasses meals. e. Cuts curves. f. Ignores suggested speed signs. g. Violates the law. h. Ignores weather and traffic conditions. i. Worries about arrival time rather than concerning self with driving. j. Passes other vehicles unnecessarily and in dangerous places. k. Forgets operating courtesy, looking (especially at blind spots) and signaling. l. Operates too long at night (eye fatigue). m. Others.	5.1 Student identifies reasons why a trip may be necessary and how preparations will differ. 5.2 Student compares the time requirement with the mileage and give consideration to the capabilities of the driver, roadway and vehicle. 5.3 Student identifies possible factors for delay and evaluates methods to minimize or adjust to the following conditions: a. city and highway speed limits b. night speed limits c. construction areas d. detours e. collisions on road f. bicycle malfunctions g. rest stops h. scenery or picture taking stops i. restaurant and overnight j. normal bicycle maintenance k. heavy or slow traffic l. searching for roads and routes m. searching for address n. taking wrong road o. types of roads encountered (multi-lane, narrow, winding, steep, etc) p. adverse weather q. congested city areas r. nature of bicycle (geared low and slow, low horse-power for extended upgrades or carrying sleeping bag, backpack and etc.)

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MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four

Applied Instruction: Physical Education
Math
Science
Social Studies

UNIT B. . .DECISION MAKING PROCESS

CONCEPT: 5.0 Route Planning (cont.)

PERFORMANCE OBJECTIVE: The student will plot various trips emphasizing time requirements, precise routes and appropriate equipment.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
	5.4 Instructor/student discuss other features concerning the use of maps: a. Map should be recent—check copy—right date. b. Study map throughly before trip. c. Examine legend to determine use of symbols, scales, colores and other details. d. Mark off each day's journey and each leg of the trip, keep rest and eating stops in mind. e. Check the map with the vehicle stopped and away from traffic. f. Plan sufficient time to lessen irritations, hazards and short tempers.	5.4 Student analyzes factors which affect trip planning.
	5.5 Instructor/student discuss bicycle maintenance. a. grips—tight b. head lock nut—tight, oiled and fork free c. stem clamp—tight, handle bars won't turn d. light—clean, bright, good batteries e. tires—properly inflated f. wheel rim—runs true, undented g. hub nuts--tight, wheels free h. pedals spin freely i. reflector—clean, not cracked j. coaster brake—operates smoothly k. chain—proper slack ½ to ¾ l. saddle clamp—bolt tight m. post bolt—tight n. chain guard—tight	5.5 Student identifies the parts of the bicycle to be checked and the required safety equipment for the bicycle. Transparency Original No. 7 Individualized Learning Guide No. 8
	5.6 Instructor/student discuss necessary and optional equipment for the bicycle: a. tire pump	5.6 Student will be aware of the equipment necessary and what is optional equipment.

(cont. on next page)

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four

Applied Instruction: Physical Education
Math
Science
Social Studies

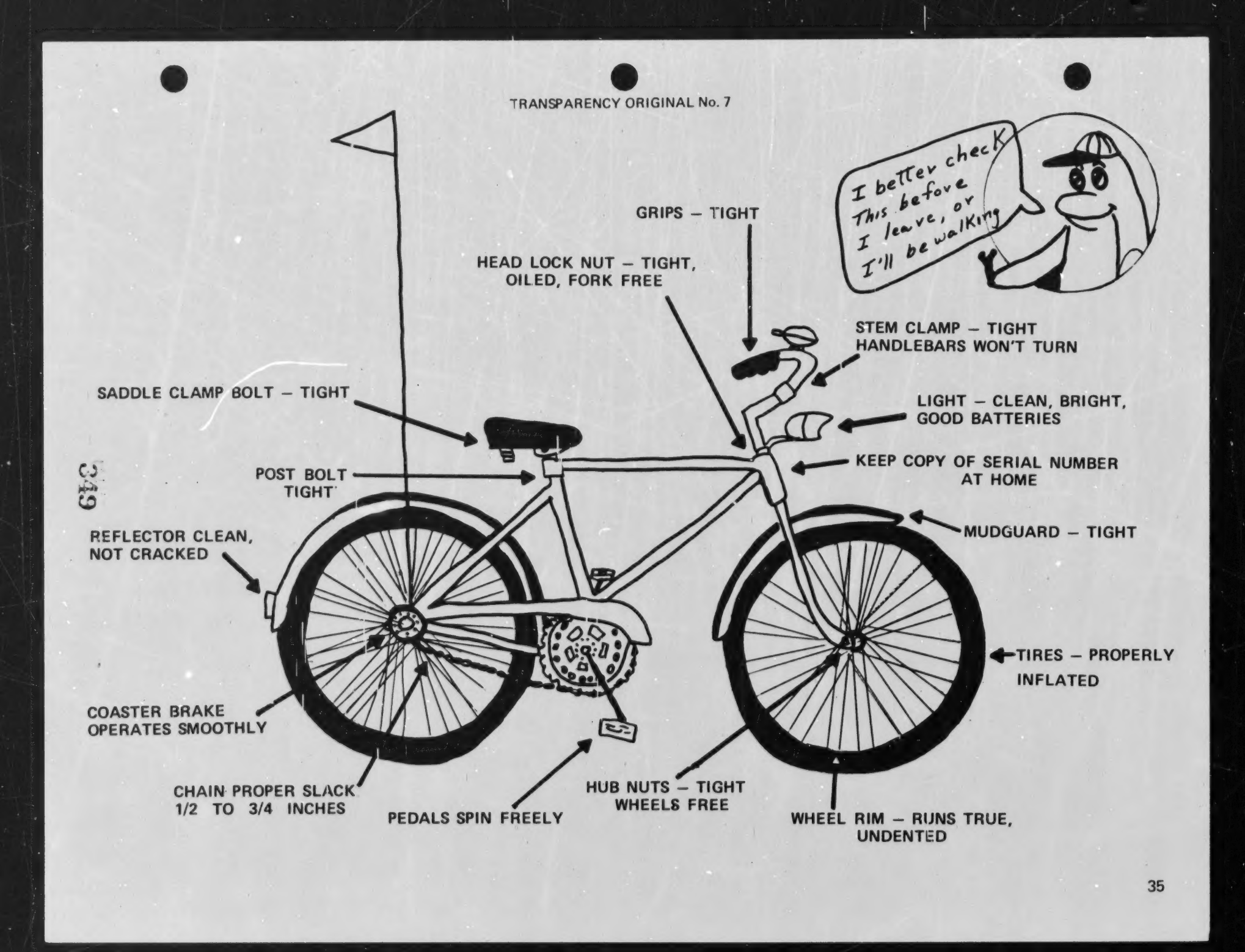
UNIT B. . .DECISION MAKING PROCESS

CONCEPT: 5.0 Route Planning (cont.)

PERFORMANCE OBJECTIVE: The student will plot various trips emphasizing time requirements, precise routes and appropriate equipment.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
	b. tool box (suggest minimum tools) c. flash light and spare batteries d. First aid kit and manual e. tube repair kit f. all weather apparel g. chain—extra links h. litter bags i. small oil can j. basket or carry racks	
	5.7 Instructor/student discuss essentials such as: a. Money—cash, checks, traveler's checks. b. How much money is required and if extra money is needed how to obtain it. c. Local laws. d. National forest travel may require you to carry a shovel, axe, bucket and other items. e. Personal identification.	5.7 Student will be able to cope with emergencies on a bicycle trip.
	5.8 Instructor assists student in planning an extensive trip on a bicycle. Include a marked map and written details of the trip.	5.8 Student will be able to plan an extended trip on a bicycle.
	5.9 Instructor reviews traffic controls and operator signals.	5.9 Student explains what traffic controls mean to the bicycle operation and how to use hand signals.

NEW WORDS: recreation, relaxation, destination, origin, delay, familiar, malfunction, violate, congested, adverse


I better check This before I leave, or I'll be walking
GRIPS – TIGHT
HEAD LOCK NUT – TIGHT, OILED, FORK FREE
STEM CLAMP – TIGHT HANDLEBARS WON'T TURN
SADDLE CLAMP BOLT – TIGHT
LIGHT – CLEAN, BRIGHT, GOOD BATTERIES
POST BOLT TIGHT
KEEP COPY OF SERIAL NUMBER AT HOME
REFLECTOR CLEAN, NOT CRACKED
MUDGUARD – TIGHT
TIRES – PROPERLY INFLATED
COASTER BRAKE OPERATES SMOOTHLY
CHAIN PROPER SLACK 1/2 TO 3/4 INCHES
PEDALS SPIN FREELY
HUB NUTS – TIGHT WHEELS FREE
WHEEL RIM – RUNS TRUE, UNDENTED

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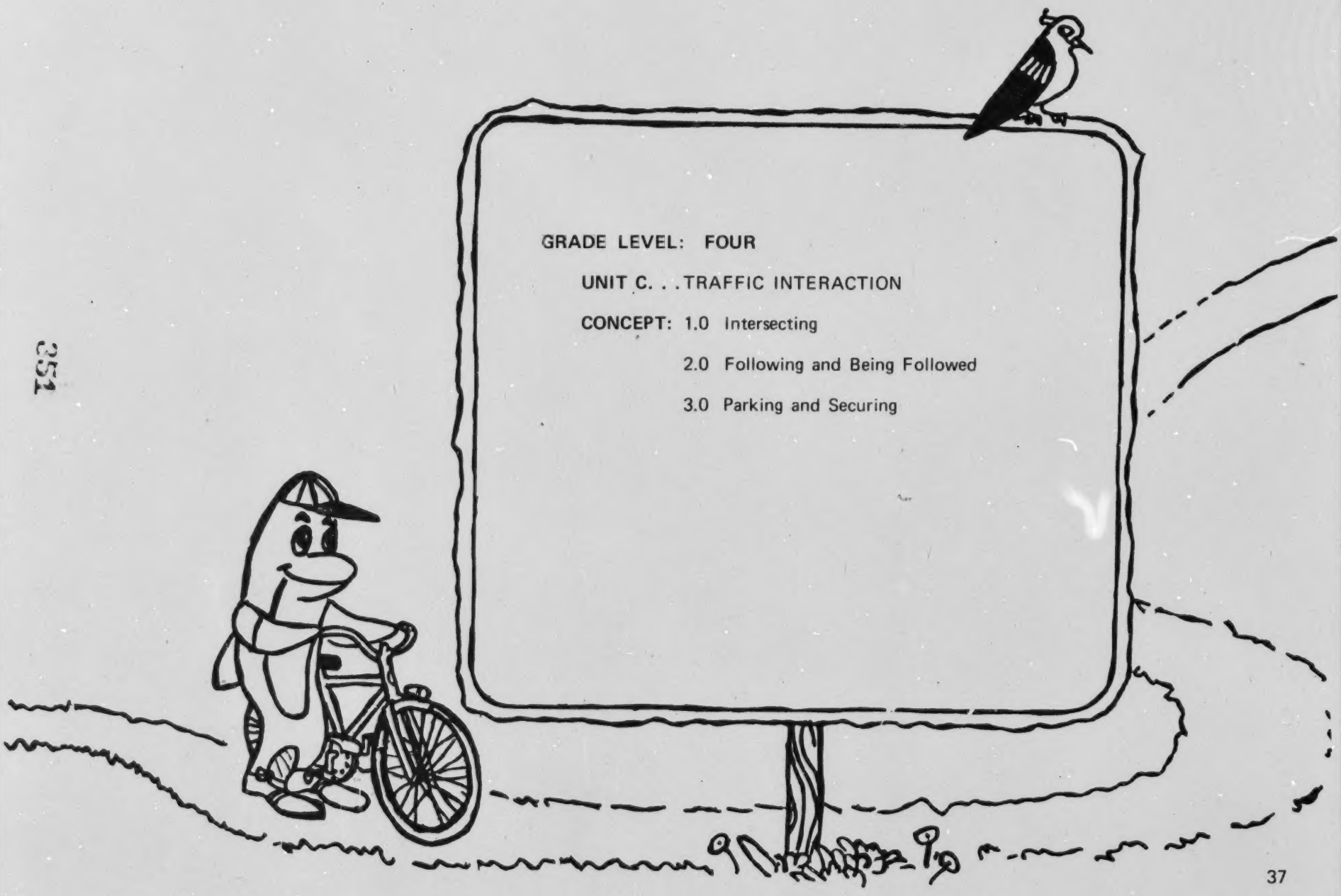
MATCH THE PART OF THE BIKE, IN COLUMN A, WITH THE PROBLEM IN COLUMN B BY DRAWING A LINE FROM COLUMN A TO COLUMN B.

A BIKE PART	B PROBLEM
WHEELS	DIRTY OR CRACKED
TIRES	SPOKES LOOSE
BRAKES	MUST BE CORRECT HEIGHT
SEAT	NO TREAD
HANDLE BARS	NO GRIPS
LIGHTS AND REFLECTORS	DOES NOT STOP


GRADE LEVEL: FOUR
UNIT C. . .TRAFFIC INTERACTION
CONCEPT: 1.0 Intersecting
2.0 Following and Being Followed
3.0 Parking and Securing

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four

Applied Instruction: Social Studies
Language Arts
Music
Math

UNIT C. . .TRAFFIC INTERACTION

CONCEPT: 1.0 Intersecting

PERFORMANCE OBJECTIVE: The student will identify conflicts related to intersecting.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: Review controls if necessary. Information Sheet, Page 12-15	1.1 Instructor/student discuss intersection conflicts. a. Vehicle shape b. Vehicle color c. Buildings d. Trees and hedges e. Pedestrians f. Other bicycles **Trigger Questions** a. What are some conflicts you can recall seeing on your way to school today? b. Can you assume a driver of a car will always see you?	1.1 Student identifies intersection conflicts. Individualized Learning Guide No. 9
Student Material Individualized Learning Guide No. 9	1.2 Instructor/student discuss the differences in intersections. a. Stop sign-two and four way b. Traffic signals (standard, flashing yellow or red) c. Yielding right of way	1.2 Student identifies braking differences at various intersections.
Reinforcement Activity Blackboard illustrations of intersections and traffic controls can be used by student or instructor. Tune of "Ye Picky Olde Bard" A safer driver you will be, If you learn to look and see. Dangers you miss by not turning your head, Can wind you up in a hospital bed.	1.3 Instructor initiates discussion on ways operators can minimize conflicts at intersections. a. signaling b. visual search	1.3 Student identifies ways to minimize conflicts at intersections

(cont. on next page)

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four

Applied Instruction: Social Studies
Language Arts
Math
Music

UNIT C. . .TRAFFIC INTERACTION

CONCEPT: 1.0 Intersecting (cont.)

PERFORMANCE OBJECTIVE: The student will identify conflicts related to intersecting.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
	1.4 Instructor carefully demonstrates visual search pattern: Check left, straight ahead, to the right and back to left before going through intersection. Stress the point that each intersection is different and may require a variation of the search pattern. Stress blind spots.	1.4 Student develops visual search pattern to be used at intersections to minimize conflicts.
	1.5 Instructor initiates discussions on hazards and precautions for safe intersecting of railroad crossings. a. type of crossing 1. controlled 2. uncontrolled b. location of crossing 1. in town 2. on highway c. number of tracks at crossing d. angle of track to roadway **Trigger Questions** a. What hazards do any of the types of railroad crossings create? b. How would adverse weather affect your crossing railroad tracks?	1.5 Student identifies hazards and precautions of railroad crossings.

NEW WORDS: variation, precaution, visual search

DIRECTIONS:

MEASURE A CAR AND A BICYCLE OR MEASURE THE PICTURES OF EACH AND COMPARE THE SIZE OF EACH IN METERS.

WRITE A SHORT NEWS ARTICLE ABOUT A COLLISION BETWEEN A CAR AND A BICYCLE.

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four

Applied Instruction: Language Arts
Math

UNIT C. . .TRAFFIC INTERACTION

CONCEPT: 2.0 Following and Being Followed

PERFORMANCE OBJECTIVE: The student will identify the factors involved in following and being followed and determine techniques to minimize possible conflicts.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Individualized Learning Guide No. 10 May be read by the instructor or if possible by the students. Information Sheet, page 10	2.1 Instructor/student discuss reaction time versus stopping distance and effect of distractions such as: a. day-dreaming b. sight-seeing	2.1 Student evaluates the factors necessary to maintain a "space cushion."
	2.2 Instructor demonstrates proper position of the bicycle slightly left or right of center.	2.2 Student evaluates how speed positioning and directional control will affect the "space cushion."
	2.3 Instructor will explain "timed intervals" and following distance concept.	2.3 Student explains the "time interval" techniques for following. Individualized Learning Guide No. 10
	2.4 Instructor has student diagram blind spots in simulated situations.	2.4 Student defines blind spots of a vehicle and bicycle and determines techniques to minimize such hazards in following. Transparency Original No. 11
Student Material Individualized Learning Guide No. 10 Transparency Original No. 11	2.5 Instructor explains the rule "double the speed and braking distance increases four times." Illustrate this at 20 and 40 mph.	2.5 Student defines stopping distances on various pavements at 20 and 40 mph.
	2.6 Instructor determines the student's knowledge of relevant definitions. a. reaction time b. reaction distance c. braking distance d. total stopping distance e. tailgating	2.6 Student verbalizes an understanding of relevant terms.
	2.7 Instructor describes purpose and procedure of using: a. arm signals b. lane position c. speed control	2.7 Student describes situations where communications should be used to indicate to the following vehicles an operators intentions.

NEW WORDS: simulated, interval, minimize, space cushion

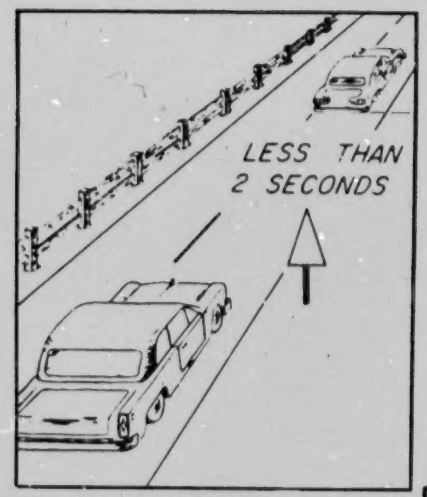
TIMED INTERVAL FOLLOWING TECHNIQUE

We know that following a car too closely with a bicycle may result in a rear-end collision. To determine the proper following distance, let us explore the timed interval for following other vehicles.

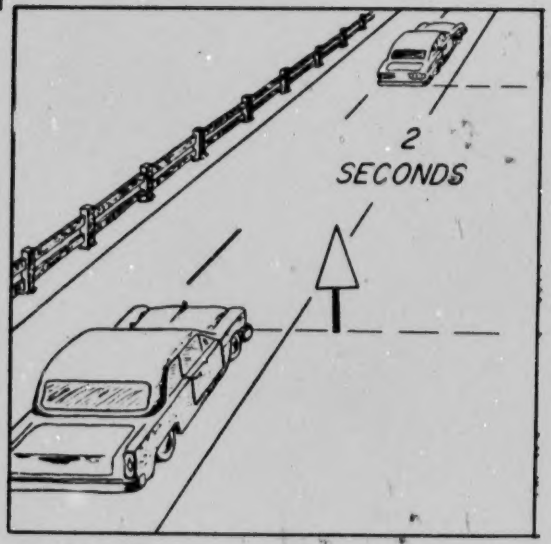
While operating a bicycle you will naturally be watching the car ahead, as well as the general traffic situation. It will be easy, therefore, for you to notice when the rear of the car ahead passes some fixed object near the side of the road, such as a sign post, mail box, telephone pole, etc. As the rear of the car ahead passes the selected point or check point, start to count to yourself — one-thousand-one, one-thousand-two. This counting method gives a close approximation of time in seconds. If it takes less than 2 seconds for the front of your bike to reach the check point, you are TOO CLOSE to the car ahead. If it take 2 seconds for the front of your bike to reach the check point, your following distance is proper. And if it takes more than 2 seconds for your bike to reach the check point, your following distance is greater than necessary for safety. Remember, you should try to maintain a 2 second time interval between your bike and the car ahead.

A. The car ahead is approaching a check point (the triangular sign).

B. Begin counting seconds as the rear of the car ahead passes the check point.

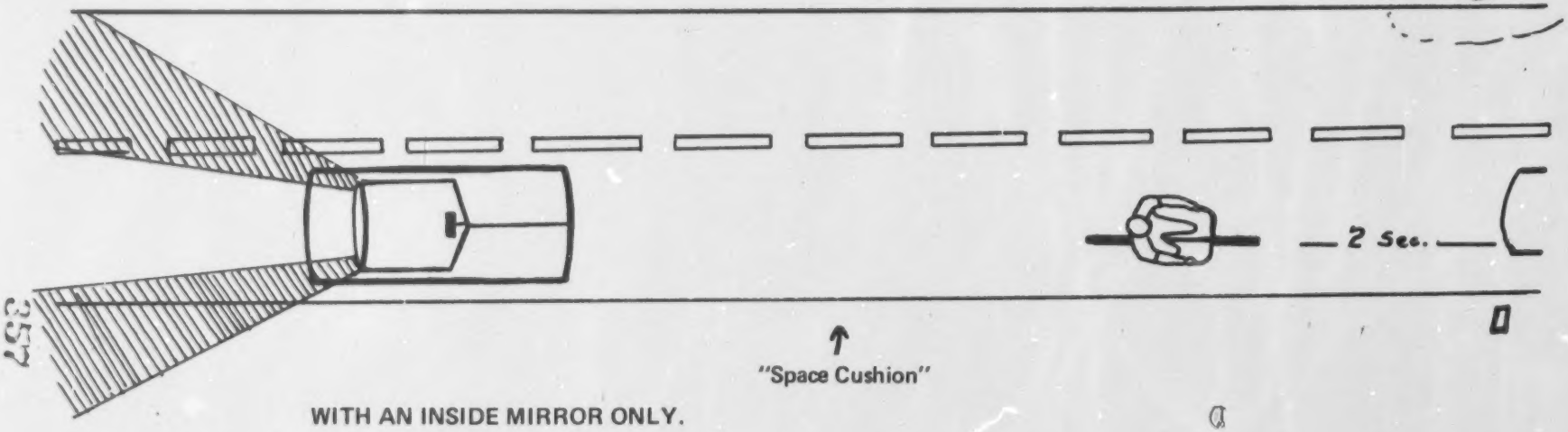


C. If it takes less than 2 seconds for the front of your car to reach the check point, you are **too close** to the car ahead.

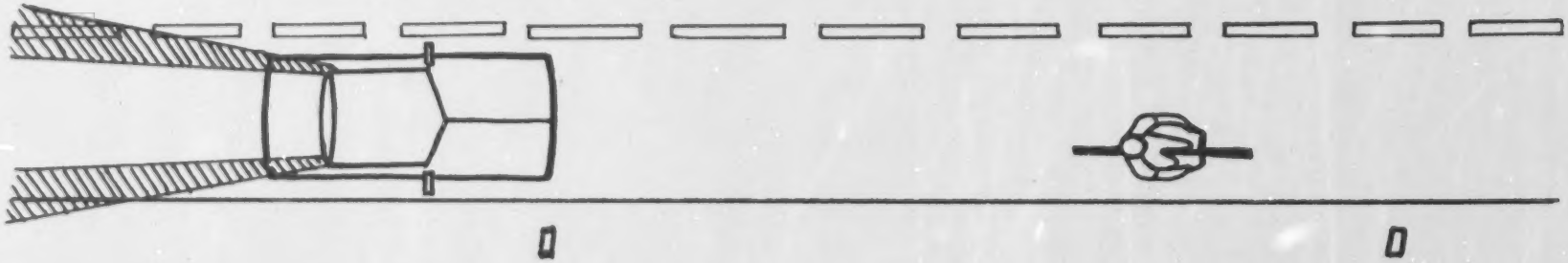


D. If it takes 2 seconds for the front of your car to reach the check point, your following distance is **proper.**

BLIND SPOTS AND FOLLOWING DISTANCE.



WITH AN INSIDE MIRROR ONLY.



WITH OUTSIDE MIRRORS ADDED.

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four

Applied Instruction: Social Studies
Language Arts

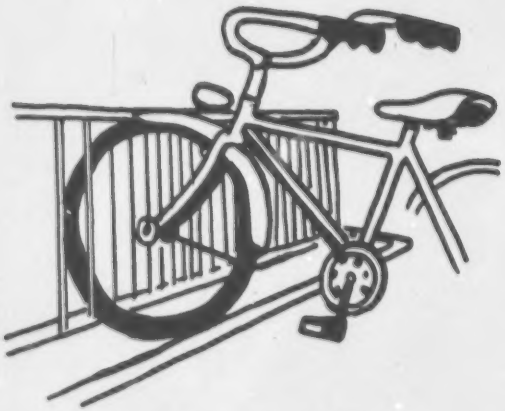
UNIT C. . .TRAFFIC INTERACTION

CONCEPT: 3.0 Parking and Securing

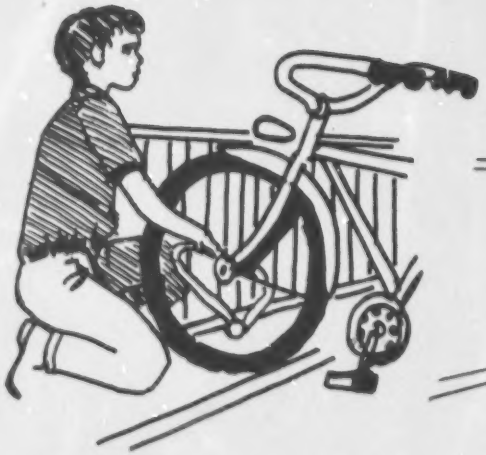
PERFORMANCE OBJECTIVE: The student will identify types of parking and securing.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material	3.1 Instructor/student discusses various means of parking a bicycle.	3.1 Student identifies various means of parking bicycles Transparency Original No. 12
	3.2 Instructor initiates discussion about securing a bicycle. **Trigger Questions** a. How many students use the bicycle racks? b. How many students use their kick stand? c. How many students lock their bicycles?	3.2 Student describes how they should secure their bicycles after parking.
Student Material Transparency Original No. 12		
Reinforcement Activity Examine how bicycles are parked and secured in the school area.		

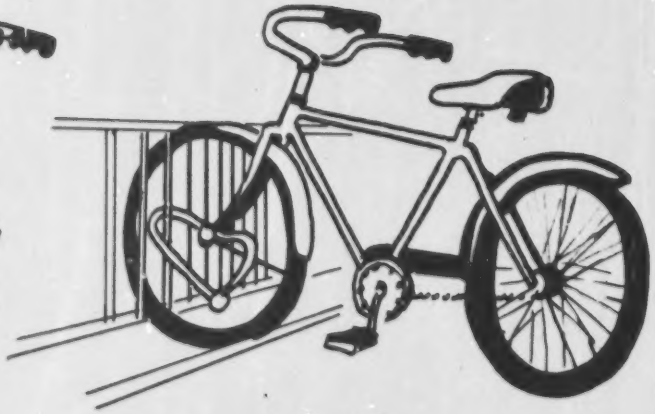
NEW WORDS: secure, parallel, angle



PARKING BIKE IN RACK



SECURING BIKE



CHAIN IN PLACE

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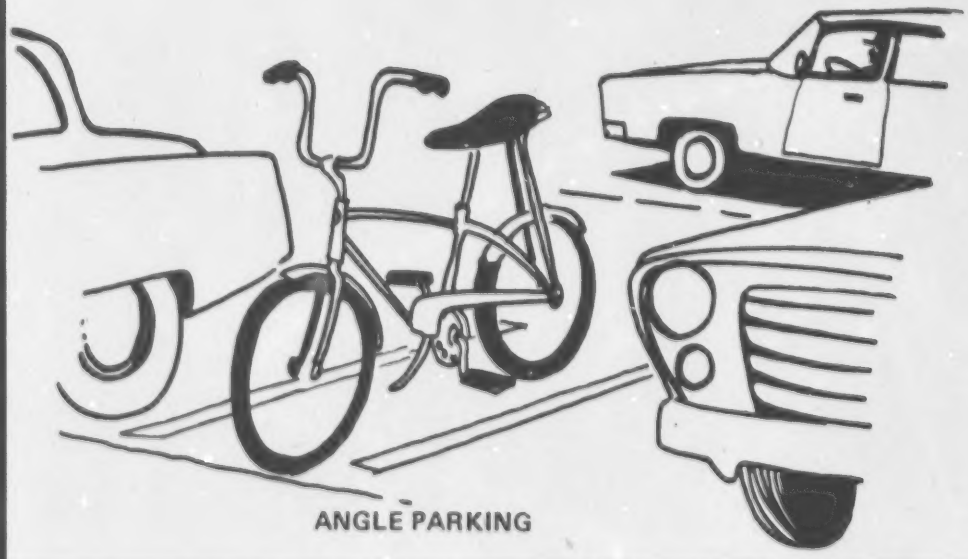
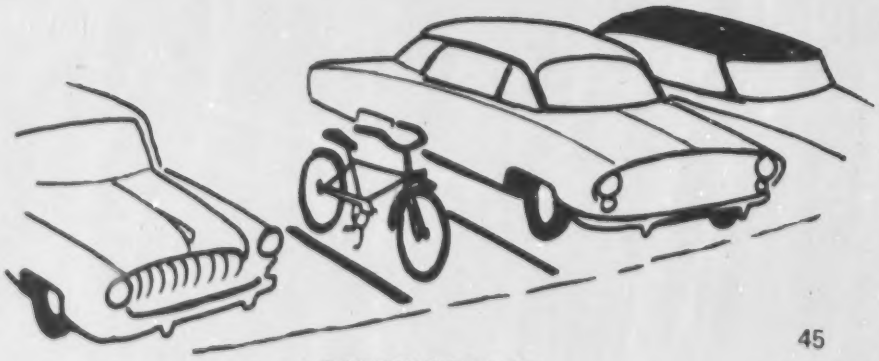
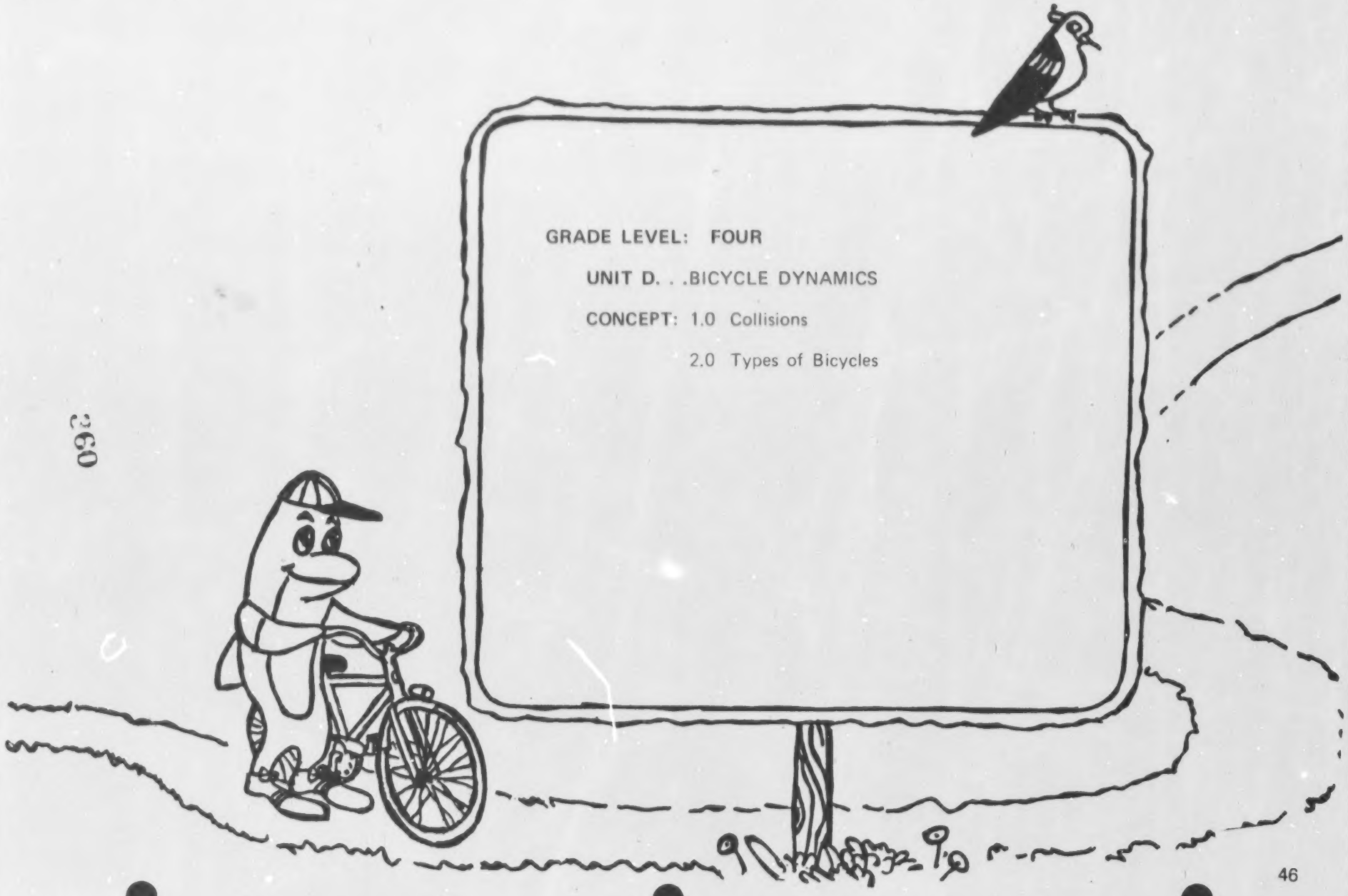


ANGLE PARKING



PARKING IN LOT


GRADE LEVEL: FOUR
UNIT D. . .BICYCLE DYNAMICS
CONCEPT: 1.0 Collisions
2.0 Types of Bicycles

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four

Applied Instruction: Science

UNIT D. . .BICYCLE DYNAMICS

CONCEPT: 1.0 Collisions

PERFORMANCE OBJECTIVE: The student will identify factors contributing to collisions.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 11 Film: "Bicycle Safety" No. 2795 "The Day Bicycles Disappeared" No. 6616 State Audiovisual Library **Student Material** **Reinforcement Activity** Page 48	1.1 Instructor/student discuss conditions which might cause collisions due to specific bicycle deficiencies. a. Night operating lack of headlights lack of reflectors b. Pedestrians lack of warning device c. Brakes d. Weather slick tires causing skidding | wet brakes reduces friction for stopping	1.1 Student analyzes and discusses the possible bicycle deficiencies which might cause collisions under the following circumstances: a. Night operation b. Pedestrians c. Weather d. Stopping distance

NEW WORDS: deficiency, friction, contribute, circumstance

1. The class should proceed to the playground. The teacher should tape a line across a portion of the playground. A child should be chosen to ride the bike from a point 100 yards away from the tape to the tape. The class should be seated near the tape. As the bicycle rider crosses the tape, the teacher should say "stop." Now measure from the tape to the stopping point and see how far the stopping process took. Fast and slow stops should be practiced. If all the children can try stopping at least once, a lot will be accomplished.

2. If time permits, a bucket of water may be thrown on a portion of the pavement and stopping on wet surfaces practiced.

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MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four

Applied Instruction: Science

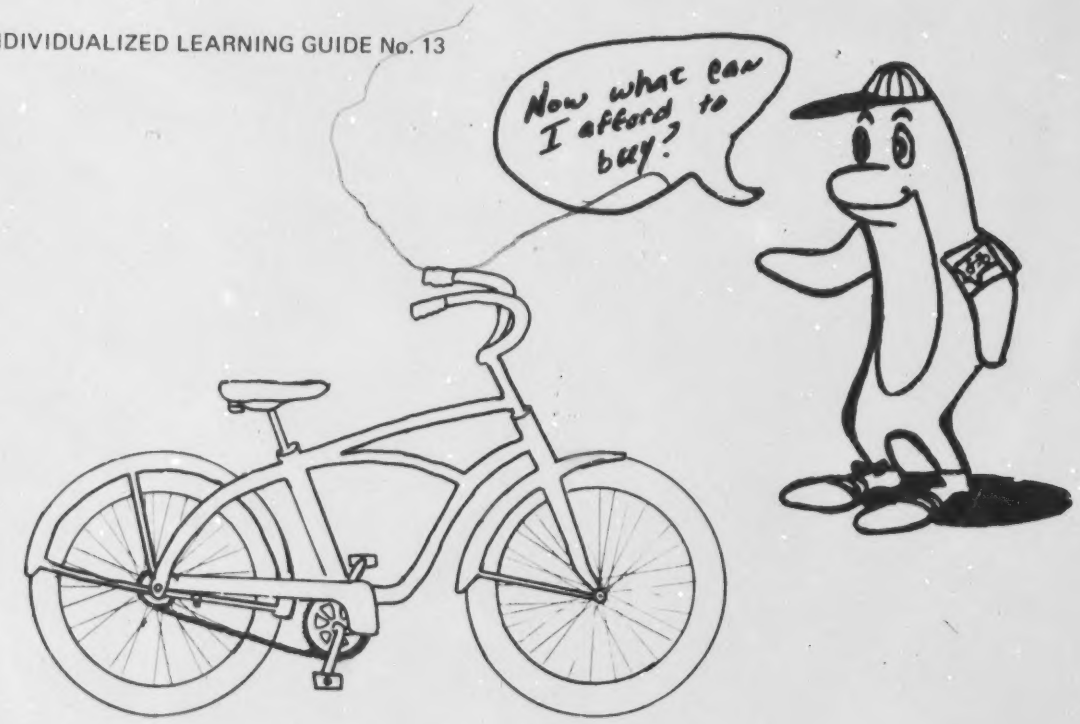
UNIT D. . .BICYCLE DYNAMICS

CONCEPT: 2.0 Types of Bicycles

PERFORMANCE OBJECTIVE: The student will become familiar with control characteristics of various types of bicycles.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 54 Film: "I'm No Fool With A Bicycle" No. 7823 State Audiovisual Library	2.1 Instructor/student discuss high rise bicycles.	2.1 Student recognizes a high rise bicycle. Individualized Learning Guide No. 13
	2.2 Instructor/student discuss braking distances. **Trigger Questions** a. What is a coaster brake? b. What are caliper brakes? c. Which would stop you faster: caliper or coaster brakes? d. What are the dangers of the use of front caliper brakes only?	2.2 Student understands braking characteristics of caliper and coaster brakes.
Student Material Individualized Learning Guide No. 13	2.3 Instructor/student discuss high speed and its effect on control. **Trigger Questions** a. How fast can a three speed bike cruise? b. How do gears affect operation of a bicycle? c. Which bike can go faster—a one speed or a three speed?	2.3 Student understands higher speed capabilities of mutli-gear bicycles and effect on control.

NEW WORDS: capabilities, characteristics

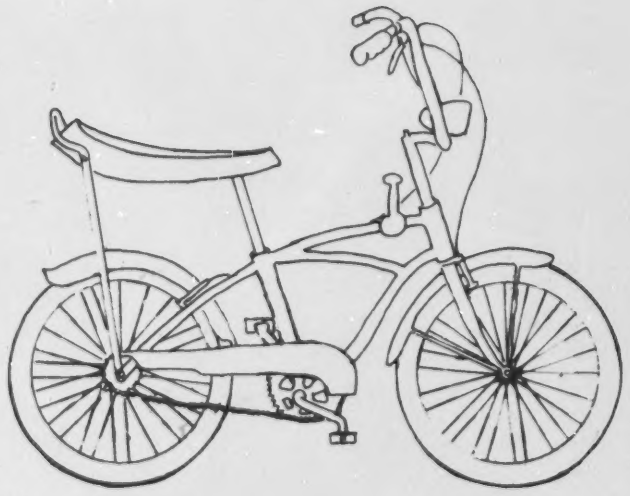


THE BICYCLE

Today's bicycles come in several models. The bicycles are built in basic styles – middlewight and high-rise. Each style offers different models to suit your needs and pocketbook.

The **Middleweight Bicycle** is strong and durable and weighs about 50 pounds. Its ability to withstand punishment is its chief virtue. The bicycles have large low pressure tires and coaster brakes. (The only braking system that should be considered for any young beginner.)

The **High-Rise Bicycle** is designed for fun. These bicycles are definitely not for beginners. They have a shorter wheelbase, smaller wheels, high handlebars and a long banana seat. The enable the driver to make quick turns and perform trick maneuvers. If you must get one, get it without gears and with a coaster brake; accident studies agree that grear levers or stick shifts can cause serious injury if you fall into or onto them and falls are a frequent form of accidents with this style of bicycle.



GRADE LEVEL: FOUR
UNIT E. . .CAREER AWARENESS
CONCEPT: 1.0 Careers

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four – Five

Applied Instruction: Language Arts
Art
Social Studies

UNIT E. . .CAREER AWARENESS

CONCEPT: 1.0 Career

PERFORMANCE OBJECTIVE: The student will be aware of careers in transportation.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material	1.1 Instructor/student discuss the careers related to school transportation.	1.1 Student lists careers which are related to bicycle transportation. Individualized Learning Guide No. 14 Transparency No. 15
Student Material Individualized Learning Guide No. 14 Transparency Original No. 15		
Reinforcement Activity Career Awareness, page 55		

NEW WORDS: career, awareness, related

LIST THE TYPES OF CAREERS RELATED TO BICYCLE TRANSPORTATION.

1. _____

2. _____

3. _____

4. _____

5. _____

TRANSPARENCY ORIGINAL No. 15

CAREER AWARENESS

LEVEL	BICYCLE	RELATED TO BICYCLING
4–5	SALES PERSON	DOCTOR
	BIKE REPAIR	AUTO DRIVER
	POLICEMAN	SANITATION ENGINEER
	SCHOOL PATROL	PLAYGROUND SUPERVISOR
	STREET REPAIRMAN	SERVICE STATION ATTENDANT
	MAINTENANCE OF STREETS, SIDEWALKS, AND LIGHTS	PARK AND RECREATION OCCUPATIONS
	BICYCLE DESIGNER	PRODUCTION AND DISTRIBUTION OF BICYCLES
		PROFESSIONAL BICYCLE RACER
		TEACHER
		PARENT
		DESIGNER OF CLOTHES FOR BICYCLING
		BIKE FLAG PRODUCTION

REINFORCEMENT ACTIVITY

Career Awareness Level 4–5

The following is a list of possible activities which can be introduced to create awareness of occupations integrated into the instructional areas:

MATH

1. Word problems related to odd jobs the student is paid for.
2. Figure weight capacity of vehicles, and cost of transportation.
3. Compute tolls and determine how they are used.
4. Figure the cost of travel by commercial means.

SOCIAL STUDIES

1. Discuss the relationship of various types of transportation.
2. Discover the social impact of various commercial and private transportation.

ART

1. Discuss color significance in traffice controls.
2. Draw pictures of various transportation and related careers.

MUSIC

1. Learn how folk music, related to careers in transportation, originated.
2. Learn the music of a specific group of transportation related occupations.

SCIENCE AND HEALTH

1. Perform experiments using energy.
2. Discuss how a road is built and what considerations must be made about route. Who makes the determinations?

LANGUAGE ARTS

1. Have a discussion about transportaiton occupations and write a description of one or more jobs.
2. Learn why the vocabulary of a specific group of occupations is different from another.

PHYSICAL EDUCATION

1. Discuss the impact on the physical body from selected occupations.
2. Determine how good physical health helps to keep an individual mentally alert for his job.

The general plan for an introduction of career related fields is for the observable and familiar careers to be introduced at the early levels of kindergarten and grade one. The directly related careers are mentioned as well as a repetition of the observable and familiar careers in levels two and three.

More complex and indirectly related careers as well as the previously mentioned careers at levels four and five. Naturally, the complexity and extent of the traffic and transportation fields are so far reaching that only a few select careers are listed, a complete list would demand a volume. Ocassionally, an exotic career should be brought to the attention of the student to stimulate thought on the part of the student, and to motivate students to explore the extent of the transportation field.

Grade six explores the way to get a job. Students at grade six often do have some jobs which are involved in transportaiton to an extent, such as clearing sidewalks, and it should be explored as to how this can become a business like venture.

A perusal by the teacher of a volume of occupational titles could be useful to refresh himself with the depth and scope of the traffic and transportation field.

On the left is a list of suggested activities which can be integrated into the curriculum. This list is limited but may be a start to help the teacher develop a vast career awareness in the student.

APPENDICES

CROSSWORD PUZZLE	A
KEY	B
CROSSWORD PUZZLE	C
KEY	D
ARM PATCH	E
SIGN WORD PUZZLE	F
KEY	G
SONG (ARE YOU RIDING?)	H
BIKE TEST	I
SKILLS SELF ASSESSMENT	J
BIKE ROUTE	K
MODEL TRAFFIC LIGHT	L
SAMPLE ACTIVITIES	M
ROUTE GAME	N
FESTIVAL OF BIKES	O–S

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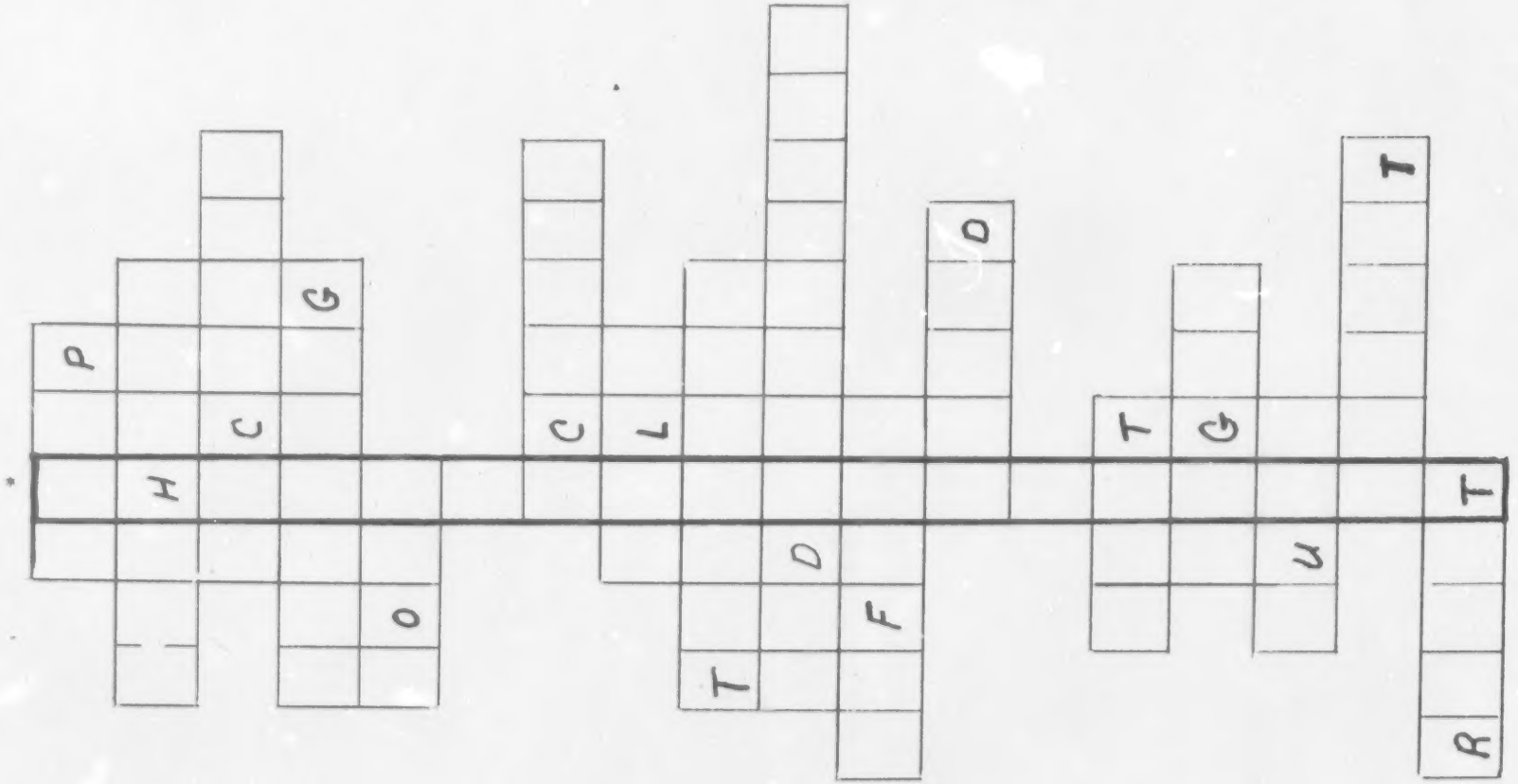
CROSSWORD PUZZLE

FILL IN THE TRAFFIC SAFETY WORDS IN THE CORRECT SQUARES AND WATCH THE MESSAGE APPEAR IN THE *STARRED COLUMN!

SIGNS	BICYCLE	LEFT	STREET
HIGHWAY	PEDESTRIANS	LOOK	WARNING
CURB	SCHOOL	RIGHT	STOP
YIELD	WALK	SAFETY	TRAFFIC

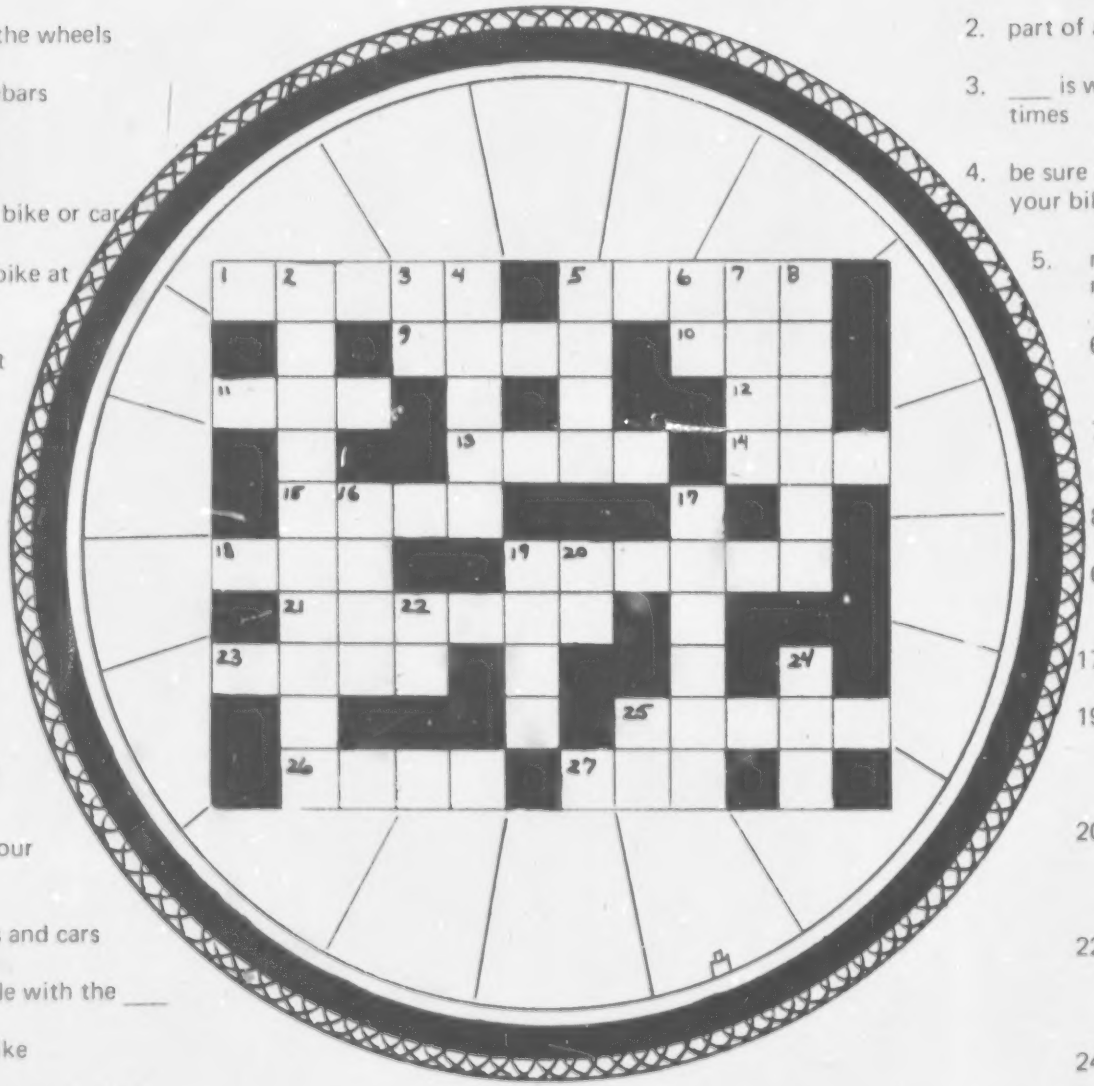


KEY

S T O P
H I G H W A Y
B I C Y C L E
W A R N I N G
L O O K
S C H O O L
W A L K
T R A F F I C
P E D E S T R I A N S
S A F E T Y
I L E D
L E F T
S I G N S
C U R B
S T R E E T
R I G H T

CROSSWORD PUZZLE

TRY THIS BICYCLE SAFETY PUZZLE FOR A FUN CHALLENGE!



ACROSS

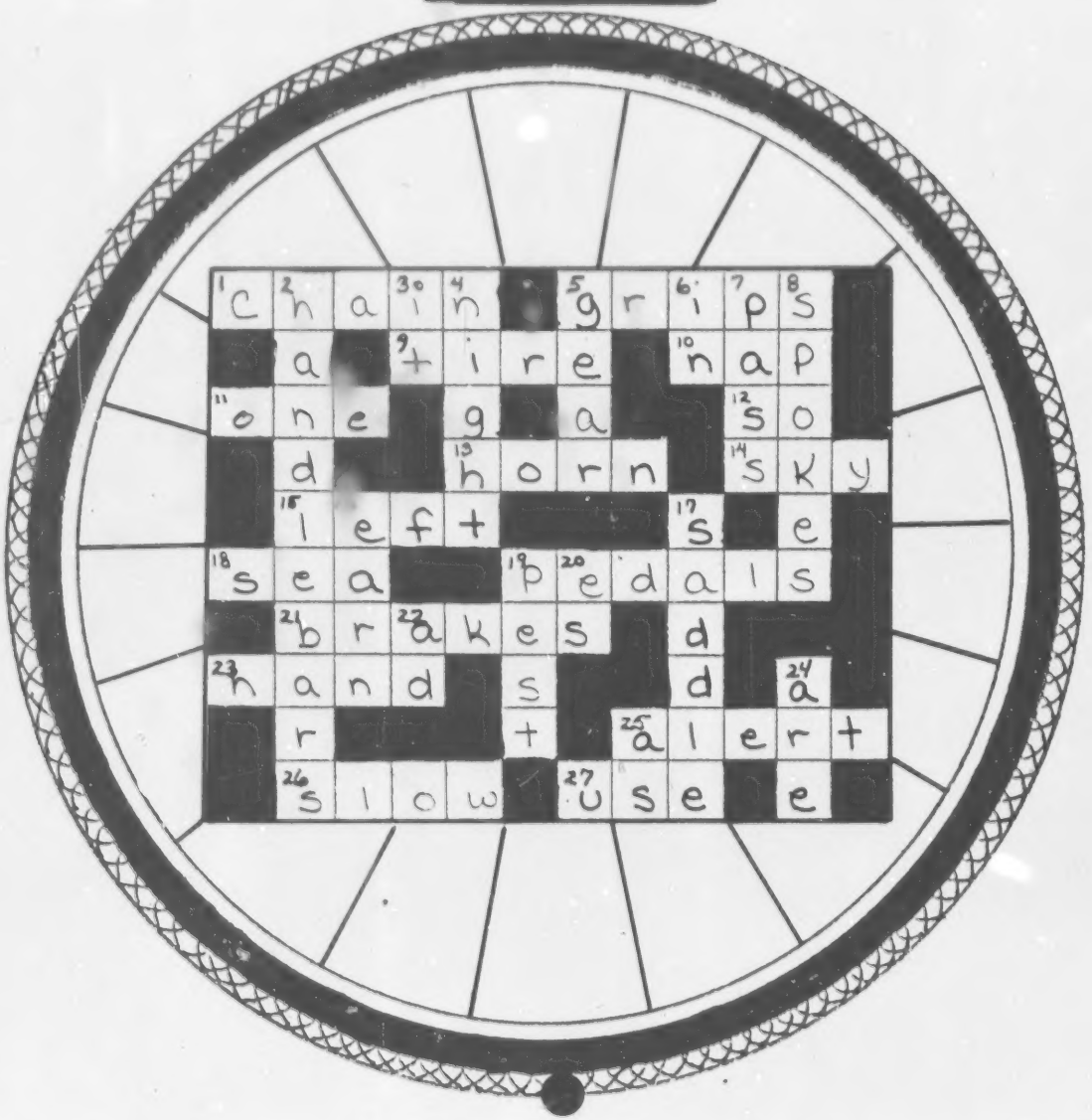
1. part on a bike that turns the wheels
5. rubber part on the handlebars
9. rubber part of the wheel
10. never ___ while driving a bike or car
11. only ___ should be on a bike at a time
12. drive ___ that you do not endanger yourself or anyone else
13. a warning device on a bike or car
14. do not gaze at the ___ while driving your bike
15. the ___ side of the road is for walking only
18. a place where bikes never go
19. parts of a bike you put your feet on
21. stopping devices on bikes and cars
23. on a bike, signals are made with the ___
25. always be ___ on your bike
26. a sign that says this means not to drive fast
27. always ___ caution while driving a bike or car

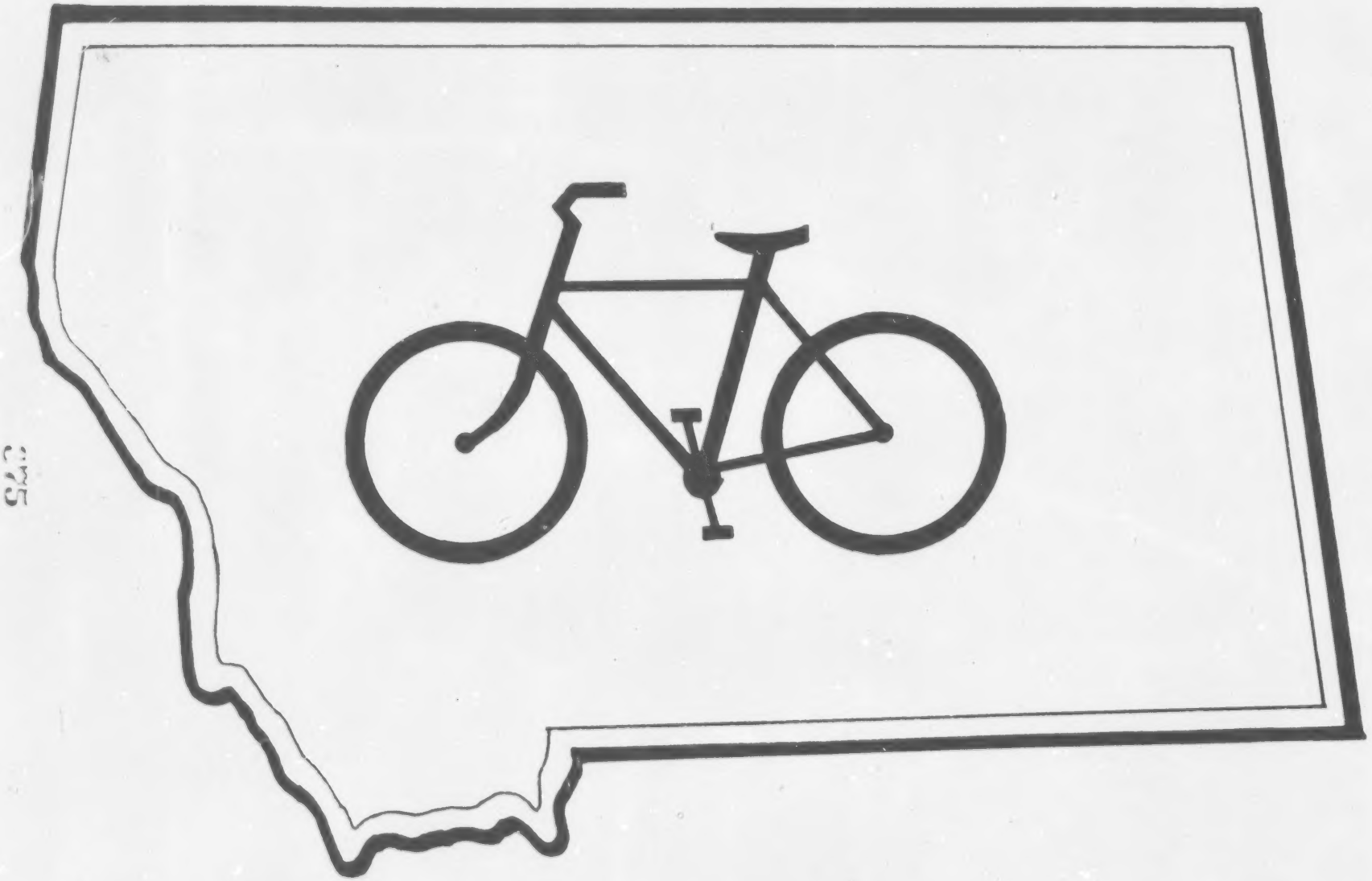
DOWN

2. part of a bike you hold on to
3. ___ is wise to be careful at all times
4. be sure to have a good light on your bike for ___ riding
5. round, toothed part that moves the chain
6. never weave ___ and out of traffic
7. to drive around another vehicle
8. part inside the wheel
6. you must ___ the right to drive a bike or car
17. the seat on a bike
19. only a ___ would beg to hitch a ride on another's bike
20. bicycle drivers must obey all signs and other traffic control devic_ _
22. _ _vise your friends to put their bikes safely away when not in use
24. the fork bearings ___ parts which must be lubricated
25. learn to drive a bike ___ well ___ you can

Words Used:
use–alert–grips–nap–so–sky–pedals–chain–horn–tire–slow–hand–one–brakes–sea–gear–left–handlebars–spokes–are–saddle–earn–pass–night–pest–as–in–it

Key


1 c 2 h a 3 i n 4 g r 5 i p 6 s
a 7 t i r e 8 n a p
9 o n e g a 10 s o
d 11 h o r n 12 s k y
13 l e f t 14 s e
15 s e a 16 p e d a l s
17 b r 18 a k e s d
19 h a n d s d 20 a
r t 21 a l e r t
22 s l o w 23 u s e e



ROAD SIGNS

LET'S FIND THE HIDDEN

SIGN WORDS!

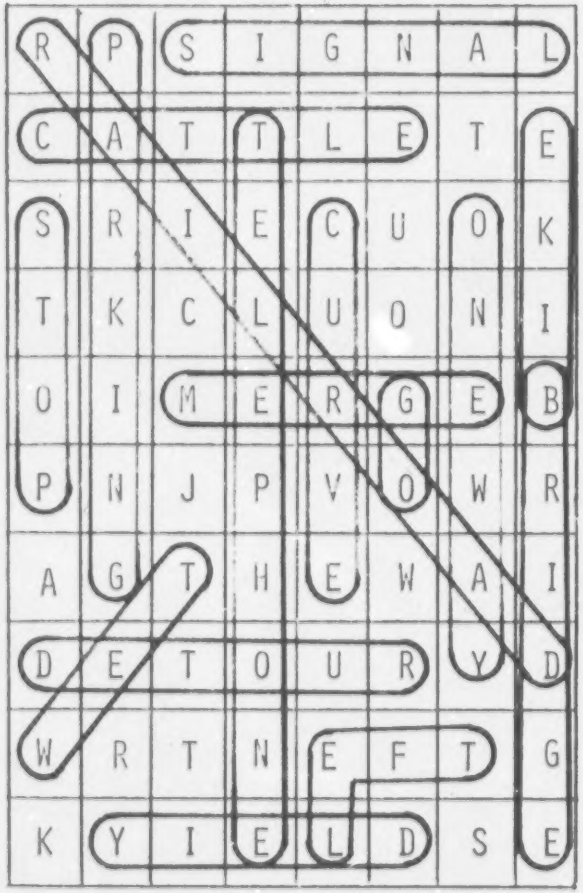
R	P	S	I	G	N	A	L
C	A	T	T	L	E	T	E
S	R	I	E	C	U	O	K
T	K	C	L	U	O	N	I
O	I	M	E	R	G	E	B
P	W	J	P	V	O	W	R
A	G	T	H	E	W	A	I
D	E	T	O	U	R	Y	D
W	R	T	N	E	F	T	G
K	Y	I	E	L	D	S	E

WORD LIST

CURVE
WET
DETOUR
SIGNAL
BIKE
RAILROAD
ONEWAY
YIELD
CATTLE
LEFT
STOP
BRIDGE
MERGE
TELEPHONE
PARKING
GO

ROAD SIGNS

KEY



MUSIC

ARE YOU RIDING?

tune of: "BROTHER JOHN"

1.

ARE YOU LEARNING?
ARE YOU LEARNING?
HOW TO RIDE,
AND SURVIVE?
PRACTICING IS WISE,
ON A BIKE YOUR SIZE,
FAR FROM CARS,
FAR FROM CARS.

2.

ARE YOU CHECKING?
ARE YOU CHECKING?
FOR THINGS WRONG,
ALL DAY LONG?
MOVING PARTS ARE HANDY,
IF THEY'RE NOT SANDY,
ON YOUR BIKE,
ON YOUR BIKE.

3.

ARE YOU RIDING?
ARE YOU RIDING?
CAREFULLY?
THAT'S THE KEY.
WATCHING ALL THE SIGNS,
KEEPING RIGHT OF LINES,
ON YOUR BIKE,
ON YOUR BIKE.

4.

ARE YOU PARKING?
ARE YOU PARKING?
WHERE YOU OUGHT?
AS YOU'RE TAUGHT.
PARK YOUR BIKE IN RACKS,
NEVER PILE IN STACKS,
AT THE SIDE,
AT THE SIDE.

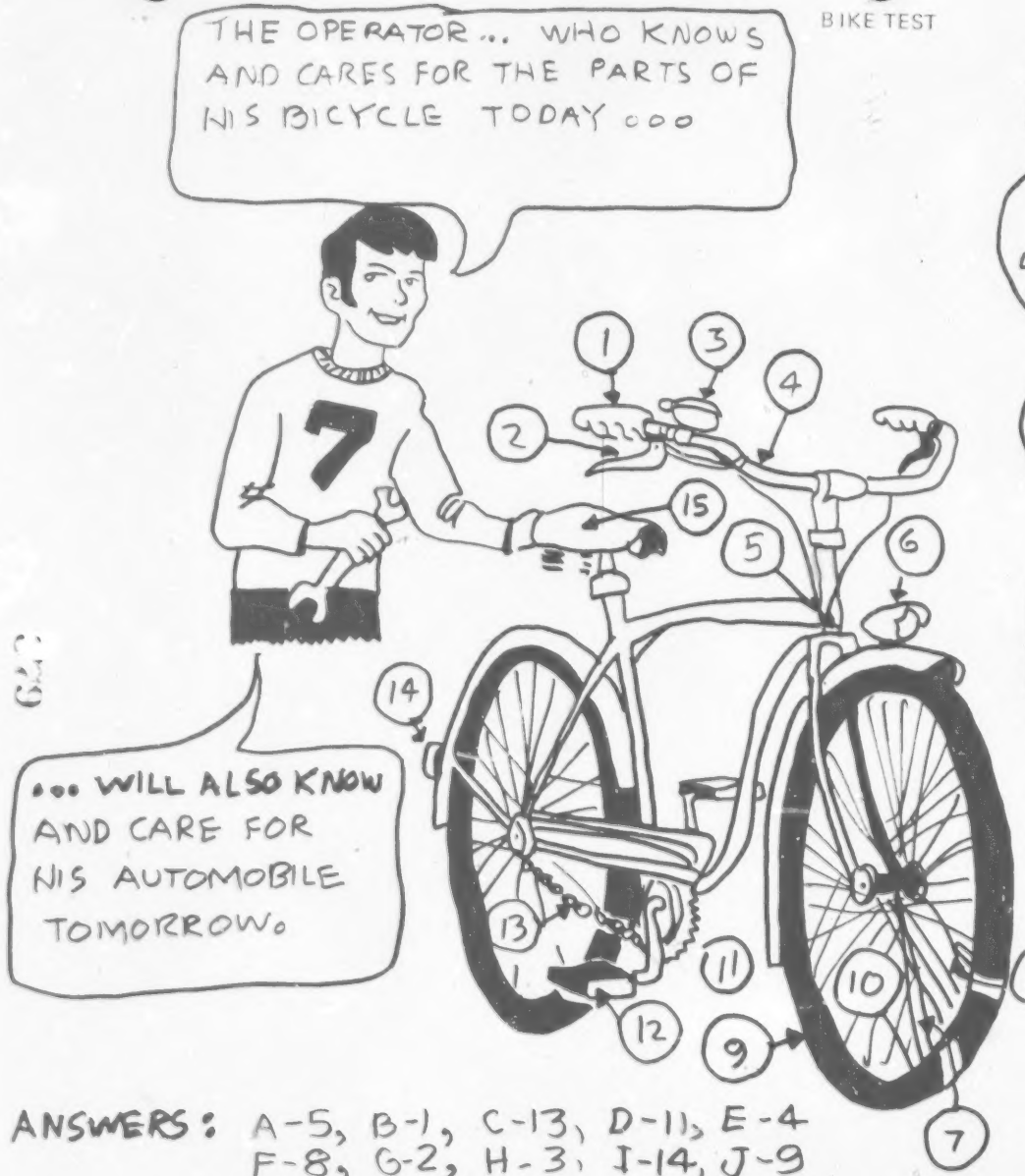
5.

IS IT RUGGED?
IS IT RUGGED?
WHERE YOU GO . . .
SLEET OR SNOW?
GRAVEL ROADS ARE TROUBLE,
ICY ONES ARE DOUBLE,
STAY AT HOME,
STAY AT HOME.

6.

WHEN YOU'RE DRIVING,
WHEN YOU'RE DRIVING,
USE YOUR MIND –
YOU WILL FIND –
BIKES ARE VERY NICE,
IF YOU TAKE ADVICE,
AND TAKE CARE
EVERYWHERE!

BIKE TEST



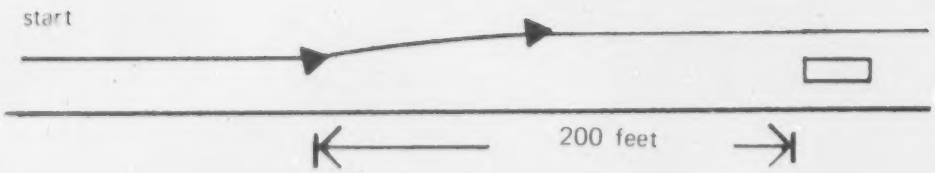
PUT THE CORRECT NUMBER IN THE BOX WHICH DESCRIBES THE NUMBERED PART.

ANSWERS: A-5, B-1, C-13, D-11, E-4
F-8, G-2, H-3, I-14, J-9
K-7, L-12, M-10, N-6, O-15

Simulate a traffic situation as described below. Have the student participate and self assess his procedure and skill.

Layout:
Straight stretch of street or highway (a mock 'highway' may be laid out on the playground) at least 200 feet long with a simulated parked car (large box, bicycles, etc.) as obstacles at one end of highway on the same side the rider will be on.

Description:
Cyclist rides along highway at average speed. As he approaches the obstacle, he observes traffic behind him, makes the proper signal and passes the obstacle when it is safe. (Other bicycle operators can be used to represent passing automobiles.)

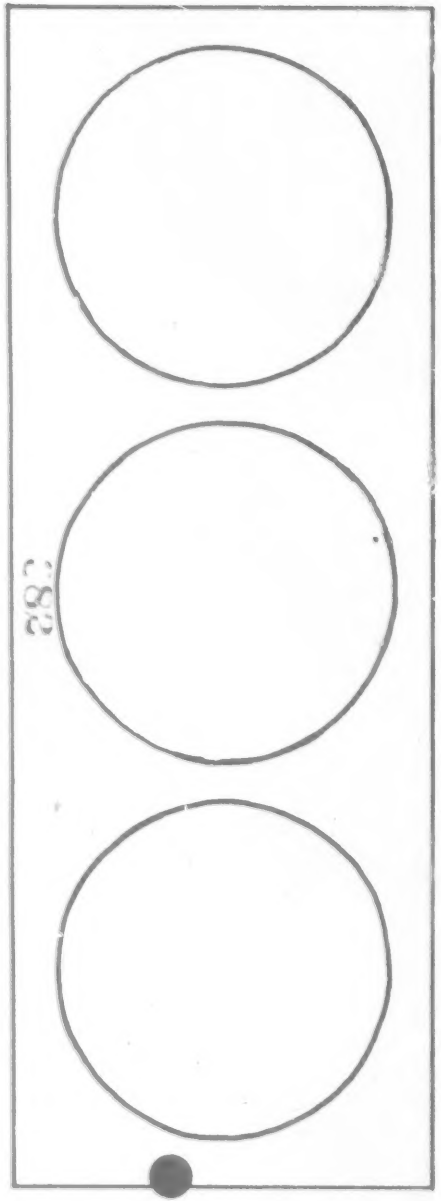


Points:
1. Operator oberves traffic behind him. (4 points)
2. Signals the intention to turn out. (4 points)
3. Passes obstacle in safe manner. (2 points)
4. Rides at least five feet from side of obstacle. (3 points)
5. Pulls back to proper postion on side of road. (2 points)

Sign coloring – WHITE: bicycle interior, border line, arrow, letters **BIKE ROUTE**
GREEN: background of bicycle, background or arrow

REINFORCEMENT ACTIVITY

MODEL TRAFFIC LIGHT



Cut three large holes in the side of a half-gallon milk carton. Cover the top hole with *red* cellophane or tissue. Cover the middle hole with *yellow*, and the bottom hole with *green*. Cut a hole in the opposite side of the carton so the cellophane circles can be illuminated from behind with a flashlight. Insert a cardboard mailing tube in the base for a stand. Children can take turns operating the traffic light with a flashlight.

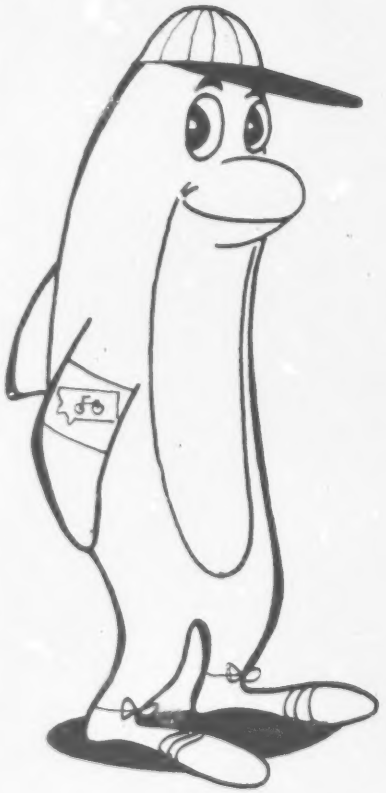
DICK DOLPHIN:

HE IS VERY BRIGHT.

WHEN THE LIGHT TURNS RED -
STOP ! HE USES HIS HEAD.

WHEN THE LIGHT TURNS YELLOW -
WAIT ! BE A CAREFUL FELLOW.

GREEN LIGHT - LOOK LEFT AND RIGHT
AND BE SURE IT'S CLEAR,
BEFORE YOU CAN CROSS WITHOUT ANY
FEAR.



Ten Little Bikes
(tune: *Ten Little Indians*)
10 little bikes all in a line;
1 fell over—then there were 9.
9 little bikes all in a line;
1 was stolen—then there were 8.
8 little bikes all in a line;
1 got hit—then there were 7.
7 little bikes all in a line;
1 lost a wheel—then there were 6.
6 little bikes all in a line;
1 hit a tree—then there were 5.
5 little bikes all in a line;
1 went through a stop sign—then there were 4.
4 little bikes all in a line;
1 rode double—then there were 3.
3 little bikes all in a line;
1 didn't signal—then there were 2.
2 little bikes all in a line;
I hooked a ride—then there was 1.
1 little bike all well;
Following the safety rules—he'll stay that way.

Poem
When riding a bike,
Look out for those who hike.
Make sure you use your noggin.
Don't be dobbin
Keep moving along, and obey
all bicycle rules,
For you wouldn't want the doctor to
use his tools.
Don't fall down and bump your nose,
Just because you were pedaling
barefoot with your toes.
Always be careful.
Don't be dareful.
Don't ride double with your friend,
Or it may very well be your end.

Crossing a busy street
Is not a treat.
You have to look left and right
Until there's not a car in sight.

Know your bicycle rules,
Don't be fools.
Remember them all
And you won't have to make
a doctor's call.

Poem
When Dick Dolphin rides his bright red bike,
He watches for the traffic light.
He stops with red, and goes with green,
For the rushing cars are very mean.
The cars are big; Dick's bike is small.
Dick knows the safety rules—one and all.
Dick wishes you would know them too;
And use them on your way to school.
But not just on your way to school;
ALWAYS use Dick's safety rules.

by *Kara*

Read Aloud Safety Story
One day, Dick Dolphin and his friends went for a ride on their bikes. They looked at the signs by the road. They saw a white sign with a red band like this one.

"What shall we do?" asked Jack. "We must slow down," said Dick. "Then we will look around carefully. If there isn't any car coming we will go on." "Why do we have to slow down?" asked Tom. "So that we will be safe bike riders," said Dick. "The people on that other road have the right-of-way." "What does that mean?" asked Jack. "It means that they do not have to stop for us." said Tom. "Isn't that right, Dick?" "Yes," said Dick. "Now here is another sign. What does it say?""

"I know that one," said Jack. "That means stop." "Why is it red?" asked Tim. "I know." said Bob. "Red means danger. The red sign with the white letters is easy to see, too." "You are right." said Dick Dolphin. "It is time to go home. We will find more safety signs when we go riding tomarrow. Always remember, *Safety First*!"

Fair–Mont–Egan School

WHICH IS THE SAFE PATH ?

START AT THE BOTTOM OF THE PAGE, CHOOSE YOUR PATH CAREFULLY.

'FESTIVAL OF BIKES'

School–Community Activity

A group activity, in which all students participate and the parents are involved, reinforces a student, instructor and community effort. The following is a sample of such an activity to assist you in planning. For each community the conditions, equipment and need will vary and the school should plan according to these considerations.

Leadership

Leadership is the key to success. Community involvement, a strong point in this activity, requires firm but not dictatorial leadership. Planning by the leader will assure the essential consideration of safety for the participants and observers.

Objective

1. Create attitudes which will allow students safe and enjoyable bicycle operation experience.
2. Provide an activity which creates parental awareness of bicycling and what is being taught in the school.
3. Create, by parent and community, awareness of bicycle safety.
4. Provide experiences for problem solving in simulated situations.
5. Prepare skill competencies in bicycle operation in the traffic environment such as balance, control and emergency movement.

Planning

Activities should be divided by age groups, for example, ages 6, 7, and 8 might participate as a group. A caution to the planner; avoid timed activities as opposed to skilled activities. An activity designed to improve skills of students, and being non competative, encourages young people participating to learn and not to show off.

Parents and news media should be informed well in advance of the activities. Perhaps transportaiton on a school bus could be provided. This will also help parents to understand school problems in transportation.

Most students and parents are willing participants in well planned activity spanning about 2½ to 3 hours. A program should be printed and include objectives and appropriate acknowledgements.

Planners should involve community agencies such as law enforcement, service clubs, high school students, bicycle groups, bicycle dealers, senior citizens, et al.

Sample Program:
1:00 P.M. . . . Film Showing
1:30 P.M.M. . . . Bike Inspection
2:15 P.M. . . . Bike Skills Activities
3:00 P.M. . . . Awards
3:15 P.M. . . . Bike Parade

Film – Appropriate film for parents and students chosen by age level. Previewing the film is essential. Suggested films: "Just Like A Car" or "Tripping On Two." Montana Audiovisual Library, Office of the Superintendent of Public Instruction, Helena, MT 59601.

Inspection – An inspection form, a sample of which appears on the following pages, can be obtained from the Montana Highway Patrol Bureau, Helena, MT 59601.

Activities – An outline of activities appears on appendix R. Scoring of the skills must conform to your program objectives. A suggestion is that each of the five parts have a value of 20 points. Points are deducted for errors. Use any or all activities adopting each activity to age group and area.

Awards – Every participant should leave the activity with some recognition that they have participated. Additional prizes or awards for skills could include safety items for bikes such as bike flags, reflectors, bike horn or a T-shirt (see page 7). In some communities service organizations or businesses will contribute such items. A sample award is provided on the last page.

Parade – The first consideration of parade organization is safety. Plan the route and determine how dispersion of participants will take place, keeping in mind community traffic patterns.

Helpful Aids – General outlines of skill activities and helps to a leader planning a group skill activity:

American Automobile Association
1712 G. Street, N.W.
Washington, D.C. 20006
Request single copies of activity material.

Bike Reflector Kits, products and price list available on request
Safety Factors, Inc.
6746 West North Avenue
Chicago, IL 60635

Bike safety items, price list available on request:
American Industries, Inc.
Sarasota, FL 33580

Activities and information of general use, "Expert Bike Driver":
Channing L. Bete Co., Inc.
45 Federal Street
Greenfield, MA 01301
Student booklet price 25 cents each.

Cones, bike triangles, line markers, etc.:
Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, MO 63701
Request catalog.

Reflective tape emblems with Dick Dolphin, request prices and information:
Traffic Control Products, 3M Company
James A. Delaney
109 Riverview 1 West
Great Falls, MT 59401
Request additional information on Bike Safety Kits.

(SAMPLE)

SCORE SHEET

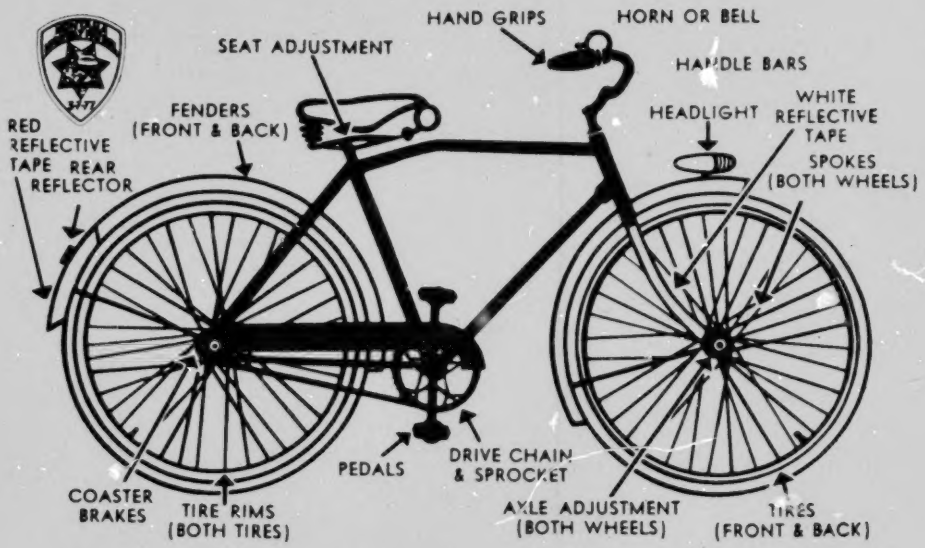
Name _____

ACTIVITY	SCORE	IMPROVEMENT IN
1. Figure Eight		
2. Straight Line		
3. Weaving		
4. Intersection		
5. Evasive		
6. Stopping		
Total		

Score Keeper _____

(SAMPLE)

INSPECTION FORM



Available from:
Montana Highway Patrol Bureau
Helena, MT 59601

BICYCLE SAFETY INSPECTION: The club instructor is to inspect each bike or he may accept a card signed by an authorized bicycle dealer as proof of safe condition.

Name of Bicycle Owner .....

Inspection Made by .....

	Pass	Adjusted	Repairs Needed
HANDLE BARS—Right height, tight. Handlegrips must be tight.			
BRAKES MUST HOLD.			
SADDLE—Should be adjusted so that leg forms straight line when rider sits with heel on pedal at lowest point.			
PEDALS—Should have good treads, lubricated to turn freely.			
WHEELS—Wobble indicates need of wheel cone adjustment or replacement of broken spokes.			
REFLECTOR—Required as essential safety item.			

HEADLIGHT: The club does not insist on a headlight, but the child must understand that it is required by law if riding after dark.

PARENTS: For safe, easy riding keep bikes in good repair. Your authorized bicycle dealer will make this inspection.

(SAMPLE)

Bicycle Skill Activities

Area: Boundries may be determined by using cones, block or lines. The perimeter of the area should be free of hazards and boundry items safe if hit by the participants. Area available and ability of participants will dictate distances.

1. *Figure Eight* – Purpose: balance and change of direction. When operating a bicycle there are frequent instances when the operator must swerve to avoid a pedestrian, a pothole, or an oncoming vehicle.

2. *Straight Line* – Purpose: start and stop without weaving. With a bicycle of proper size a participant can start and stop without weaving. The proper bike pedal position should be checked.

3. *Weaving* – Purpose: change of direction and maneuver. A bike operator becomes aware that he should not look at an obstacle because he steers in the direction he is looking.

4. *Intersection* – Purpose: hand signal check. Correct hand signals used without losing control of the bicycle.

5. *Evasive* – Purpose: evasive maneuver and change of direction in a confined area. A car door opening in the path of a bike operator requires swerving around the obstacle and avoiding oncoming traffic in a confined area.

6. *Stopping* – Purpose: stopping ability and stopping distance. Operators of bicycles are often unaware of stopping distance. Balance is important in stopping.

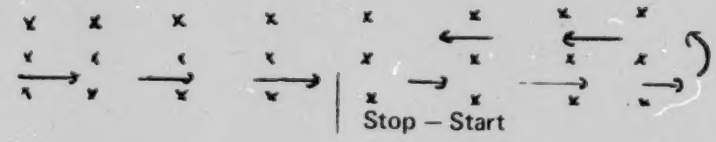
(SAMPLE)

Course Outline

'x' indicates cones or markings which show the course. Adjust distance to the area and group. Mark lanes 4 feet wide.

1.

2.



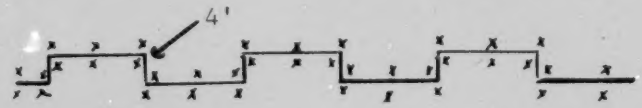
3.

Cones 8' to 10' apart

4.

Person to tell participant to turn left, right, stop or slow.

5.



6.

Reaction time —— Braking distance
(Total stopping distance)

SAMPLE
AWARD

BICYCLE SAFETY AWARD

TO _____

For participating in **BICYCLE SAFETY INSTRUCTION.**

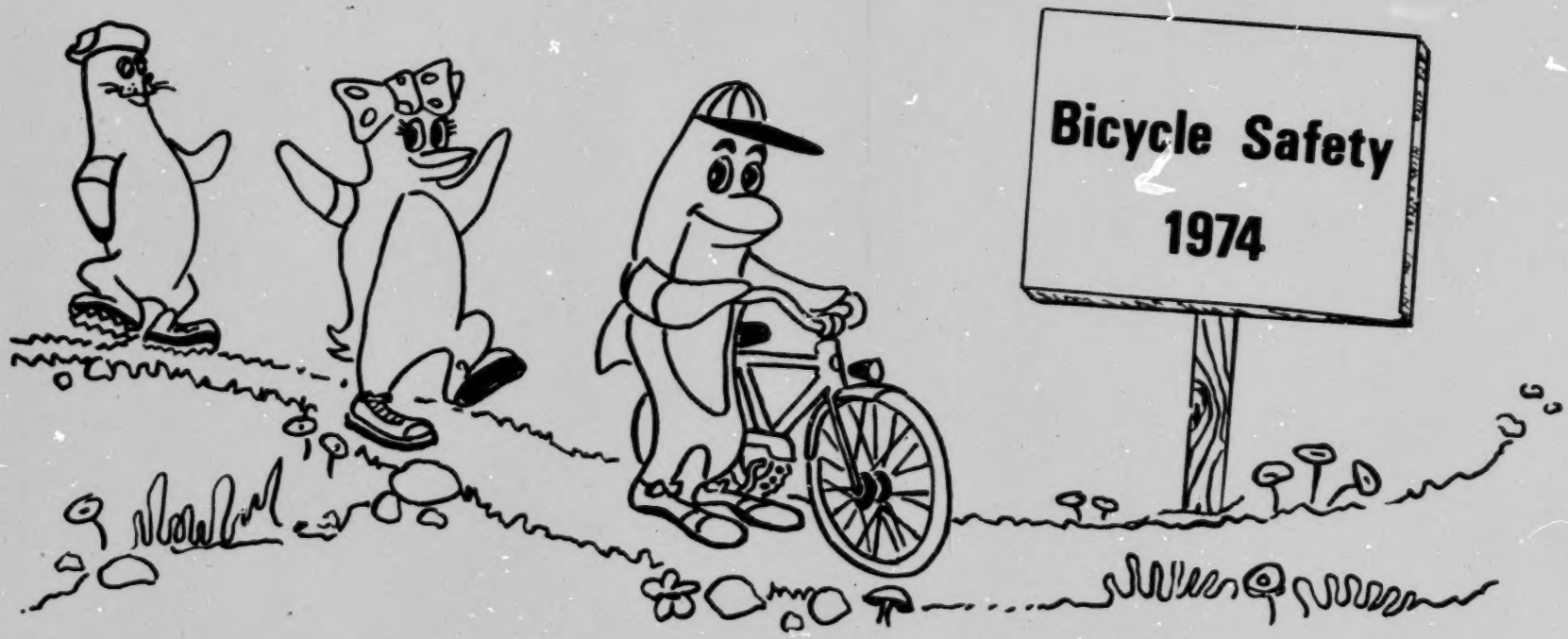
Dated _____

_____ _____

School Superintendent or Principal *Instructor*

Traffic Education for Montana Elementary Schools

5



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DOLORES COLBURG, SUPERINTENDENT OF PUBLIC INSTRUCTION, HELENA, MONTANA 59601

C91

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STATE PUBLISHING CO.–LITHO

PREFACE

This curriculum guide has been developed to assist teachers in an instructional program for elementary school youngsters in traffic education. The guide provides instructional aids and resource materials that are designed to fit smoothly into many areas of existing elementary curricula.

The basic materials in this guide were developed by participants in a July, 1973 workshop sponsored by my office and supported with a grant under the Highway Safety Act of 1966. The participants, who functioned as a task force team, are

Larry Becker
Barbara Bowlen
Don Burman
Marge Carlson
Joel Cobetto
Robert Eva
Gary Ford
Earl Furlong
Dorothea Grow
James Gunlikson
Lowell Hayes
Patricia Heydon
David Jones
Margaret Kavulla
Robert LeMieux
Thomas Loggins
Dan Magstadt
Lynn Mavencamp
Dan McKenty
Mildred McMillion
Harold G. Mogen
Raine Montysals
Roland Newton
Boyd O'Connell
Ed Reichert
Michael Rosbarsky
Minnie Skinner
David Stabio
Jack Sutton
Tally Taylor
William Taylor
R. Keith Thomas
Andrew Veis
Richard West
Jack Witham

Curtis R. Hahn, Traffic Education Supervisor, and Georgia D. Rice, Assistant Traffic Education Supervisor in my office, directed the entire effort in producing this guide. Consultative assistance, particularly for the July, 1973 workshop, was provided by Richard Boyer of Glenview, Illinois. Jerome Rankin did the artwork for the guide.

While this guide was pilot-tested in twelve elementary schools in the state prior to final publication and distribution, we would welcome responses from all who receive the guide as to its usefulness as an instructional and learning tool. Critical review of and comment on this guide can be of assistance to us in future efforts of this office.

DOLORES COLBURG
Superintendent of Public Instruction

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APPLIED INSTRUCTION AREA

To assist the instructor to integrate safety activities into instructional areas, subjects are listed and appropriate pages given below.

Subject Area	*Page Number of Related Traffic Safety Activities*
ART	Appendix L
HEALTH	28
LANGUAGE ARTS	19, 30, 36, 40, 44 Appendix A, C, F, M
PHYSICAL EDUCATION	25, 28, Appendix J, K, O–S
MATHEMATICS	40, Appendix M
MUSIC	Appendix H, M
SCIENCE	21, 40
SOCIAL STUDIES (Careers)	19, 21, 25, 30, 33, 36, 44

INTRODUCTION

As most of you know, traffic accidents represent one of the greatest threats to human preservation. Individuals are involved in a highly complex traffic environment from birth and remain involved throughout their lifetime as a passenger, pedestrian, bicyclist and motor vehicle operator. Consequently we owe it to our students to provide them the opportunity to learn the knowledges, skills, and attitudes that will allow them to function successfully within the traffic environment.

The education of a student is brought about by effective management of the total learning environment. After perusing the enclosed curricular guidelines, we believe you will discover that management by objective can be successfully applied and because the program is "performance based," learner achievement is promoted.

If we accept human preservation as an appropriate educational goal to manage as a part of the total learning environment, we must help the student develop his dicision making ability. The decision making process should begin early in the development of the student. The performances required in this program are built around decision making and problem solving. To be more specific, the concepts of IDENTIFY, PREDICT, DECIDE and ACT must be encouraged and taught throughout the utilization of this material.

The student must learn to IDENTIFY the problem or situation; PREDICT what might happen; DECIDE what course of action he must take to successfully deal with the situation; and ACT effectively. The IPDA concept has application on a much broader basis than just the traffic environment.

Human preservation cannot be achieved without the help, commitment and involvement of the following:

PARENTS

Nobody quarrels with the axiom that education begins in the home. Utilizing the home as the nearest "grass roots" of a child's learning environment is essential. The more sterile and removed the environment of the classroom, the more doomed to failure learning becomes. Ways to gain the curiosity, healthy interest, and helpful assistance of the parents are integrated in this program. The imagination of the instructor is unlimited when involvement is used to further develop the methods or create new methods.

STUDENTS

This program is based on the principle that students are aware of what tasks are expected of them, that they know what they can expect of their teachers, and that through their efforts, they can achieve success. Students are the gatherers and discoverers of information, not the receivers. Students develop psychomotor skills through practice, not as trainees. Students must become involved in the total task.

SCHOOL

When instructors, the administration, and school board agree on established goals, the compartmentalized school solidifies into a total unit dedicated to teaching the total student. A student who becomes a statistic in accident reports is denied his birthright to an education. Accident reduction in the traffic environment is an easily agreed upon goal.

COMMUNITY

No matter how small or isolated the community, various service, social, religious, and fraternal organizations and agencies are dedicated to the same goal as education. Some of these organizations and agencies have a wealth of experience, materials, and maybe most importantly, time which can be utilized and channeled for the benefit of kids. The prepared, interested and effective teacher makes full use of the community.

STATE

The Office of the Superintendent of Public Instruction Traffic Education Program is especially receptive to your suggestions to improve, polish, and perfect the instructional content of this program. Any evaluation, innovation, successful methodology from you, the instructor, would be helpful. Other agencies are also committed to the education of youth. Some are mentioned in this program.

FEDERAL

The many projects initiated by the federal government, which focus on the youth, should be evidence of a commitment to be of assistance. Often, what seems to be apathy is ignorance of your needs.

LAW ENFORCEMENT AGENCIES

From the highway patrolman to the town marshal to the sheriff – all have a vital concern that a student will be educated with a respect for and understanding of the laws which govern a society. Probably from no other source will the instructor find more cooperative and helpful people. Too often these people have seen the results of ignorance and carelessness in a traffic environment. They have a personal and professional commitment to the same goals as the instructor and this program.

SUMMARY

Students would never learn a new concept if it were not a more advanced endeavor than his previous level of knowledge. The program is created on a "building block" concept and though some concepts are difficult at the grade level assigned, the instructor should be cognizant that the student beginning at K with the kindergarten material will be ready for grade one material. Also it is not a challenge to the learner to repeat a concept which he has already discovered. Challenge your student or you will have discipline problems, frustration, and dull classes.

INVOLVEMENT

CREATES

COMMITMENT.

COMMITMENT

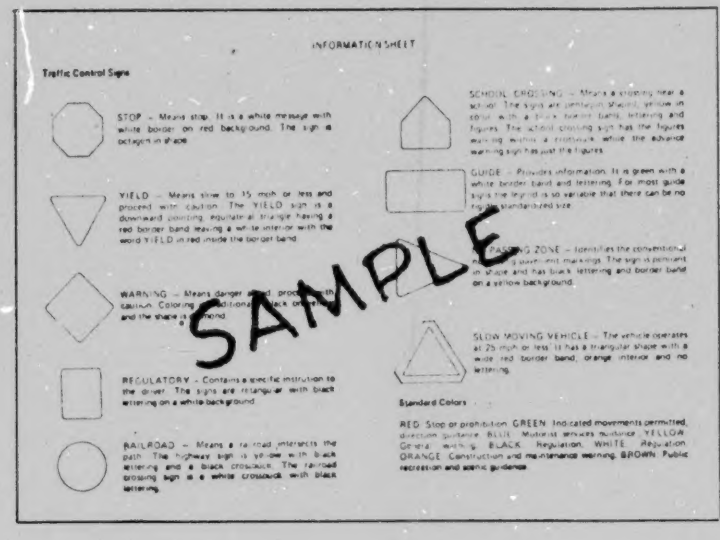
CREATES

SUCCESS.

DESCRIPTION OF FORMAT

The description of format found below is intended to provide the teacher with an overview of the various instructional materials used throughout this curriculum guide. These instructional materials have been color-coded for easier identification and implementation of unit activities. All teaching materials are printed on yellow paper. All appedices are printed on white paper. This curriculum is composed of the following instructional materials: 1. Information Sheets; 2. Format Sheets; 3. Individualized Learning Guide Sheets; 4. Transparency Original Sheets; 5. Reinforcement Activity Sheets; and 6. Appendices.

1. INFORMATION SHEETS: *Information Sheets* are printed on yellow paper and precede all other instructional materials. There are nine short sections to provide the instructor with needed information about bicycles. The *Information Sheets* help to prepare the instructor so that he will have the knowledge to teach and answer questions about bicycles. Before beginning instruction it is recommended that the instructor read all of the *Information Sheets*.



INFORMATION SHEET

Traffic Control Signs

STOP – Means stop. It is a white message with white border on red background. The sign is octagon in shape.

YIELD – Means slow to 15 mph or less and proceed with caution. The YIELD sign is a downward pointing, equilateral triangle having a red border band bearing a white interior with the word YIELD in red inside the border band.

WARNING – Means danger ahead, proceed with caution. Coloring is additional black on yellow and the shape is a diamond.

REGULATORY – Contains a specific instruction to the driver. The signs are rectangular with black lettering on a white background.

RAILROAD – Means a railroad intersects the path. The highway sign is yellow with black lettering and a black crossbuck. The railroad crossing sign is a white crossbuck with black lettering.

SCHOOL CROSSING – Means a crossing near a school. The signs are pentagon shaped, yellow in color with a black border band, lettering and figures. The school crossing sign has the figures walking within a crosswalk while the advance warning sign has just the figures.

GUIDE – Provides information. It is green with a white border band and lettering. For most guide signs the legend is so variable that there can be no regular standardized size.

SCHOOL ZONE – Identifies the conventional pentagon shape and has black lettering and border band on a yellow background.

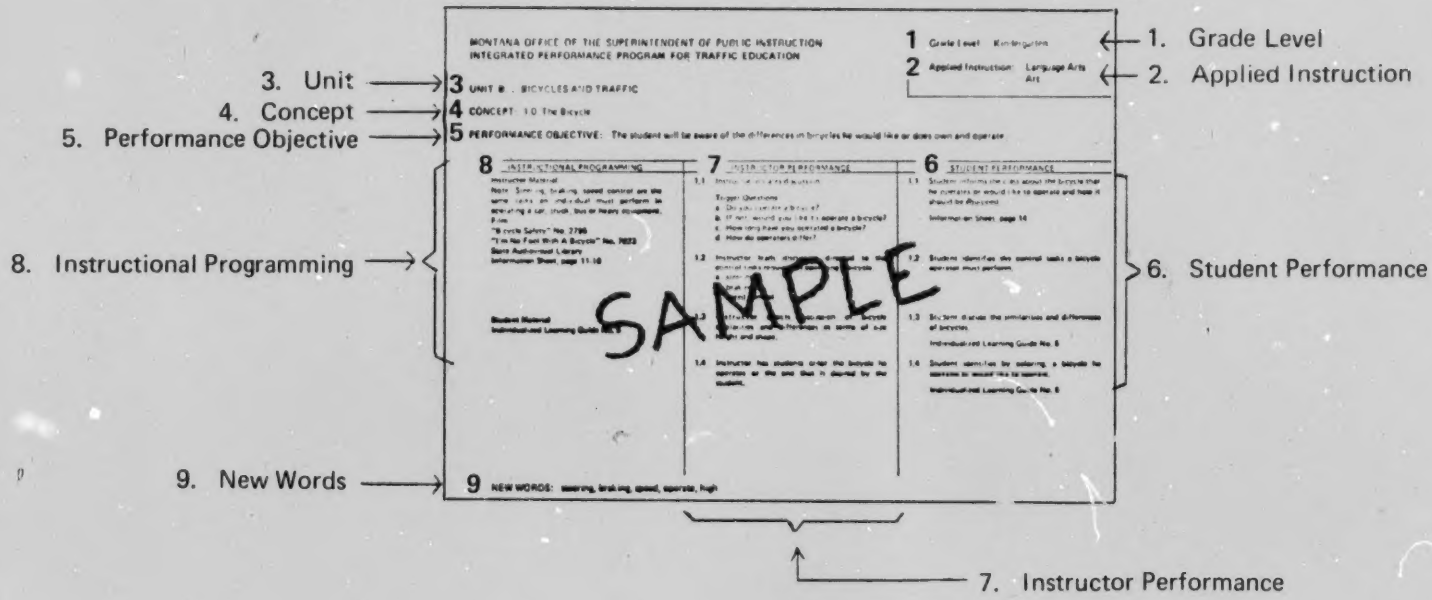
SLOW MOVING VEHICLE – The vehicle operates at 25 mph or less. It has a triangular shape with a wide red border band, orange interior and no lettering.

Standard Colors

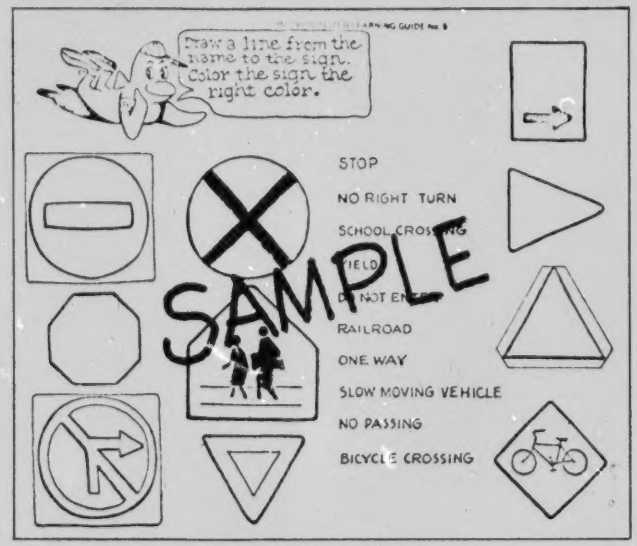
RED Stop or prohibition GREEN Indicated movements permitted, direction guidance BLUE Motorist services guidance YELLOW General warning BLACK Regulation WHITE Regulation ORANGE Construction and maintenance warning BROWN Public recreation and scenic guidance

SAMPLE

2. FORMAT SHEETS: *Format Sheets* are printed on yellow paper and provide the instructor with the following information: (1) Grade Level – indicates grade level for which this material is best suited; (2) Applied Instruction – indicates the subject matter in your existing curriculum that most closely applies to the specific concept being taught; (3) Unit – indicates the major topic being covered; (4) Concept – indicates a single idea to be taught; (5) Performance Objective – indicates what it is the student should know, feel, or be able to do at the completion of the instruction; (6) Student Performance Column – identifies what activity the student will be doing in order to learn the *Performance Objective*. Each student activity has a number. the first digit of that number corresponds with the *Concept* number. The second digit indicates which activity it is. This column also indicates which *Individualized Learning Guide Sheets* and *Transparency Original Sheets* are used with a particular student activity; (7) Instructor Performance Column – identifies what it is that the instructor will be doing to assist the student in achieving the *Performance Objective*. The number assigned to a specific instructor performance activity will correspond to an appropriate student performance activity; (8) Instructional Programming Column – lists the various instructional materials that a teacher can use to assist the student in learning the particular objective; (9) New Words – identifies the new safety words that are used with a particular *Concept*. This list is intended to enable the teacher to explain the words or substitute the words for something more appropriate. The new words list is not intended to be a spelling list.



3. INDIVIDUALIZED LEARNING GUIDE SHEETS: *Individualized Learning Guide Sheets* are for use by students. They have been developed specifically to help the student do a particular activity which will allow him to achieve a specified performance objective. *Individualized Learning Guide Sheets* follow the *Format Sheet* that listed it for use as an instructional aid and can be duplicated in quantity.



4. TRANSPARENCY ORIGINAL SHEETS: *Transparency Original Sheets* are designed for reproduction into a transparency that could be used on an overhead projector.

5. REINFORCEMENT ACTIVITY SHEETS: *Reinforcement Activity Sheets* are used to explain ways in which the teacher can enrich or reinforce a learning concept.

6. APPENDICES: *Appendices* can be found at the back of the booklet and are printed on white paper and lettered. The items found in the appendices are an array of instructional materials that could be utilized by the instructor to enhance the learning process.

Armed with this brief description of the format, we hope you will find that you can more easily use these instructional materials. Best wishes to you in your efforts to promote human preservation.

INSTRUCTOR INFORMATION

Objectives
The overall objective of this integrated approach to traffic safety is to provide a tool for instruction of students in the knowledge and skill needed to cope with the traffic environment. This program maintains a positive approach to safety and presents a "way of life," not restrictive rules in a negative approach.

Integrated
Material has been provided to integrate not add to the already existing elementary program. Although multiple activities are provided a selective approach to relevant needs of your student is encouraged.

Time
A time span is not provided because of variation and need of flexibility for the instructor. Note that format sheets do not dictate time span. The integrated approach cannot be truly utilized if a time span is dictated.

Symbols
Symbols have proven to be effective in our society (i.e., by Smokey The Bear and Woodsey Owl). You are encouraged to use the symbols (Dick Dolphin, Bicyclist; Patty Penguin, Passenger; Seemore Seal, Pedestrian) as a means of communication. The choice of symbols was made because these three animal characters are not likely to appear in an adverse situation, such as dead. Expansion is allowable to other areas of safety endeavor such as water safety. Stylization of the characters in simple lines allows a teacher and student to draw the symbols easily. The symbols are creatures which a student is not taught to stay away from and fear. We hope you will enjoy the menagerie.

Commercial Material
Commercial materials are not emphasised since most items span several grade levels. Below are listed some sources which may be helpful aids.

T–shirts can be ordered in the school's colors with one of the three characters, Dick Dolphin, Patty Penguin, Seemore Seal. Character can be printed on the front or back of shirt. The cost for a minimum of 12 is $27.00 and any over 12 is $2.25 each. Order "Traffic Characters" at The Emporium, address:

Wild West Marketing
2 West Main
Bozeman, MT 59715

State size, color and number requested.

Verses and coloring, levels K–2, request free booklets:

"Children's Safety Lessons"
Kemper Insurance
Long Grove, IL 60049

Large pages for coloring about Montana safety, levels K–2, request "Coloring Book":

Montana Highway Patrol Bureau
1014 National Avenue
Helena, MT 59601

Folder "The ABC's of Bike Riding," levels 1–2. For additional folder subjects write:

Imagination, Inc.
1821 University Avenue
St. Paul, MN 55104

Also "10 Little Bike Riders," small folder of verses.

INFORMATION SHEET

Stories and activities in "Traffic Safety Guide For Teachers," inquire at local AAA office or write:

American Automobile Association
Traffic Engineering and Safety Department
1712 G. Street N.W.
Washington, D.C. 20006

Suitable for levels 1–3.

"The Bike Book" has hints to rider and bikes available, levels 2–5, write and refer to stock No.399.91:

National Safety Council
425 North Michigan Avenue
Chicago, IL 60611

Hints and check list for proper care of bike and rules for more advanced bike drivers, levels 3–5, request "Hi! Bike Pilots!":

Safety Department
Allstate Insurance Companies
Allstate Plaza
Northbrook, IL 60062

401

Booklet presents compact lesson for bike behavior in cartoon fashion. Write for "Be An Expert Bike Driver," levels 4–6.

Channing L. Bete Co., Inc.
Greenfield, MA 01301

Pamphlet to win the State Farm Safe Bicycling Award, levels 4–6, request at local State Farm Insurance Companies or write:

State Farm Insurance Companies
Bloomington, IL 61701

"Five Keys To Safe Bicycling" from the film "The Bicycle Driver" covers five areas to consider for being good drivers. Levels 5–6, request from:

Safeco Insurance Companies
Safeco Plaza
Seattle, WA 98185

Hints to teacher about activities, explains the why for some of the rules, suggestions for involvement, levels 4–6, inquire at local AAA office or write:

American Automobile Association
Safety Department
1712 G. Street N.W.
Washington, D.C. 20006

Request Traffic Safety Guide for Teachers.

General Map Reading Rules and the "how to" of reading maps. Levels 5–6, request Map Reading and Trip Planning Course, product No. 813, Packet of 35, shipping weight 3 lbs., cost $7.95.

Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, MO 63701

A message to Bike Riders and a safety check list, level 6:

The Texas Safety Association
1623 South Lamar Blvd.
Austin, TX 78704

For Level 6, a Bicycle Safety Information Test and Answer Sheet to be used as an aid to learning, request from:

School and College Department
National Safety Council
425 North Michigan Avenue
Chicago, IL 60611

Highlights for assisting you in the care and operation of your 10 or 5 speed bicycle. Level 6, request Schwinn Care and Operation Check List:

Schwinn Bicycle Co.
1856 North Kostner Avenue
Chicago, IL 60639

General information for all levels available from:

Scott, Foresmen and Company
855 California Avenue
Palo Alto, CA 94394 (large poster with traffic signs and problem solving method);

Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, Mo 63701
(catalog for traffic education);

Kemper Insurance
Long Grove, IL 60049
(booklets);

Texas Safety Association
1623 South Lamar Blvd.
Austin, TX 78704
(general information);

Bicycle Institute of America
122 East 42nd Street
New York, N.Y. 10017
(statistics and information)

Insurance Institute for Highway Safety
1725 DeSales Street, N.W.
Washington, D.C. 20036
(general information).

Ideas

Additional popular ideas, gleaned from pilot schools, include making booklets with the Individualized Learning Guides, displaying posters in the school and in the community, and having upper grade students teach concepts to lower grade levels. Ideas contributed by teachers are incorporated in appropriate sections.

Film Library

Request all film through the Montana Audiovisual Library, Office of the Superintendent of Public Instruction, Helena, MT 59601, by title and number. Read film description and date film developed to assure current and relevant information is used.

Reinforcement Activities

Reinforcement activities to enrich and reinforce concepts are included for your selective use.

Problem Solving Method

A systematic process of identifing, predicting, deciding and acting, when confronted with a potentially dangerous situation, is essential to a student. A student must first identify the hazard, predict what will occur if certain actions are taken or not taken and then by calling on stored memory of past experience or knowledge, correctly decide on an appropriate action. Finally, he must act or react to successfully manage the encounter. These situation occur as a student crosses intersections, rides in the family car or on the school bus. They occur in the school and home environment, on the playground, and when riding bicycles or motor equipment.

Although information is received through all of the senses the greatest percent is preceived through vision. It is therefore essential to teach perception.

Visual perception is identifing, "mental decoding" of the information is predicting and deciding, then appropriate action can be taken.

In the early grade levels predicting is a difficult concept but not impossible. For some students identify, decide and act will provide a short version of the process.

Survival in many situations can depend on a problem solving method and it is the responsibility of the instructor to provide methods to the students. IPDA is a viable method in traffic education as well as in simple decisions.

Helpful aid: "Problem Solving In Everyday Safety"
A 92 transparency program in nine teaching units on Safety Education. Teaches safety consciousness as a frame of mind and mode of behavior. Most important the student is the one who arrives at the solution because he solves the problem himself. Distributed by:

Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, MO 63701

Cost: $99.95 for complete set.

Montana Motor Vehicle Code "Rules of the Road" that affect bicyclists as of July 1, 1974 are listed below.

32–2184. EFFECT OF REGULATIONS. (a) It is a misdemeanor for any person to do any act forbidden or fail to perform any act required in this article (32–2184 to 32–2190).

(b) These regulations applicable to bicycles shall apply whenever a bicycle is operated upon any highway or upon any path set aside for the exclusive use of bicycles subject to those exceptions stated herein.

32–2185. TRAFFIC LAWS APPLY TO PERSONS RIDING BICYCLES. Every person riding a bicycle upon a roadway shall be granted all of the rights and shall be subject to all of the duties applicable to the driver of a vehicle by this act, except as to special regulations in this article (32–2184 to 32–2190) and except as to those provisions of this act which by their very nature can have no application.

32–2186. RIDING ON BICYCLES. A person propelling a bicycle shall not ride other than upon or astride a permanent and regular seat attached thereto.

32–2187. CLINGING TO VEHICLES. No person riding upon any bicycle, coaster, roller skates, sled, or toy vehicles shall attach the same or himself to any vehicle upon a roadway.

32–2188. RIDING ON ROADWAYS AND BICYCLE PATHS. (a) Every person operating a bicycle upon a roadway shall ride as near to the right side of the roadway as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction.

(b) Persons riding bicyles upon a roadway shall not ride more than two (2) abreast except on paths or parts of roadways set aside for the exclusive use of bicycles.

(c) Whenever a usable path for bicycles has been provided adjacent to a roadway, bicycle riders shall use such path and shall not use the roadway.

32–2189. CARRYING ARTICLES. No person operating a bicycle shall carry any package, bundle, or article which prevents the driver from keeping at least one (1) hand upon the handle bars.

32–2190. LAMPS AND OTHER EQUIPMENT ON BICYCLES. (a) Every bicycle when in use at nighttime shall be equipped with a lamp on the front which shall emit a white light visible from a distance of at least five hundred (500) feet to the front and with a red reflector on the rear of a type approved by the board which shall be visible from all distances from fifty (50) feet to three hundred (300) feet to the rear when directly in front of lawful upper beams of head lamps on a motor vehicle. A lamp emitting a red light visible from a distance of five hundred (500) feet to the rear may be used in addition to the red reflector.

(b) Every bicycle shall be equipped with a brake which will enable the operator to make the braked wheels skid on dry, level, clean pavement.

Be sure to check city ordinances for local laws.

Bicycle Size

For safety, a student's bicycle must be the right size. If the bike is too large or too small, it will be hard to control and will make the rider tired much more quickly.

If the bicycle is too large, it will sway from side to side and the rider can't come to a stop without leaning to one side. If it is too small, the rider will bump his knees and the bike will be difficult to steer.

Also, bicycling is easier and more fun if the leg muscles can be flexed fully. The muscles won't tire as easily as when the muscle doesn't get fully extended.

Measure the distance from the child's crotch to the floor while wearing flat heeled shoes to see what size bike a child needs. If the leg length is between 29½ and 35 inches, a 19" frame is recommended. From 35" to 38", a 23" or 24" frame is recommended. Above 38", an adult's bike (26" or more) can be ridden.

When buying a bike, one should also check for accessories. The reflector should be seen from at least 300 feet. The front light should be white and be visible at least 500 feet away. The horn or bell should be audible at least 100 feet away. There should be a carrier or basket according to needs. There should be a mud guard and a proper chain guard.

Stopping

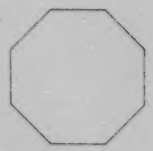
Bicycles equipped with front wheel caliper brakes, common for high rise bicycles, can be stopped in a shorter distance than bicycle with rear coaster brakes, typical of conventional models. The data available indicates that with caliper brakes, stopping distances increase with rider weight. No such variation is found with coaster brakes. Rear coaster brakes and rear caliper brakes are equally effective in panic stops.

Generally, hard rear wheel braking is much more easily handled by the experienced driver than front wheel braking.

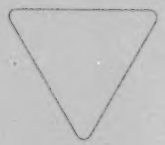
When the operator stands upright on the pedals, hard front wheel braking can lead to forward pitch-over of the rider. When this occurs, the motion is so rapid that there is little that the unsuspecting rider, even a very experienced one, can do to avoid a bad fall. Findings show that as long as the rider remains seated, on either type of bicycle, a potentially injurious pitch-over could not be induced with either bicycle. On dry, level asphalt, the test rider was able to make both bicycles pitch-over by standing on the pedals and applying hard front wheel braking. On a polished concrete surface, only the high rise bicycle could be made to pitch-over.

The bicycle must have a brake that takes hold quickly and makes the rear wheel skid on a dry, clean, level pavement. The arm of the coaster brake must be firmly attached to the frame; otherwise, braking power is lost. The brake pads on bicycles should be inspected weekly for wear and proper positioning. Brake cables should be checked for wear, fraying, and binding. Caliper brakes lose their efficiency when wet. Extreme caution must be exercised when riding in wet weather or in areas where heavy dew or puddles might wet the pads and rims.

Traffic Control Signs



STOP – Means stop. It is a white message with white border on red background. The sign is octagon in shape.



YIELD – Means slow to 15 mph or less and proceed with caution. The YIELD sign is a downward pointing, equilateral triangle having a red border band leaving a white interior with the word YIELD in red inside the border band.

WARNING – Means danger ahead, proceed with caution. Coloring is traditionally black on yellow and the shape is diamond.

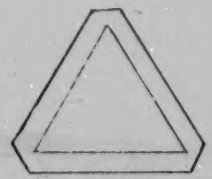
REGULATORY – Contains a specific instrution to the driver. The signs are rectangular with black lettering on a white background.

RAILROAD – Means a railroad intersects the path. The highway sign is yellow with black lettering and a black crossbuck. The railroad crossing sign is a white crossbuck with black lettering.

SCHOOL CROSSING – Means a crossing near a school. The signs are pentagon shaped, yellow in color with a black border band, lettering and figures. The school crossing sign has the figures walking within a crosswalk while the advance warning sign has just the figures.

GUIDE – Provides information. It is green with a white border band and lettering. For most guide signs the legend is so variable that there can be no rigidly standardized size.

NO PASSING ZONE – Identifies the conventional no passing pavement markings. The sign is pennant in shape and has black lettering and border band on a yellow background.



SLOW MOVING VEHICLE – The vehicle operates at 25 mph or less. It has a triangular shape with a wide red border band, orange interior and no lettering.

Standard Colors

RED: Stop or prohibition. GREEN: Indicated movements permitted, direction guidance. BLUE: Motorist services guidance. YELLOW: General warning. BLACK: Regulation. WHITE: Regulation. ORANGE: Construction and maintenance warning. BROWN: Public recreation and scenic guidance.

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Traffic Control Signals

Each traffic signal has a specific meaning for the bicycle operator.

GREEN LIGHT – indicates that the bicyclist may proceed if the way is clear.

RED LIGHT – indicates that the bicyclist is to stop.

YELLOW LIGHT – is a caution light indicating that the bicyclist is not to proceed through the intersection until the light turns green, unless already in or very near to the intersection when the light turned yellow.

GREEN ARROW – indicates that the bicyclist may proceed cautiously in the direction that the arrow is pointing.

FLASHING RED LIGHT – indicates that the bicyclist is to come to a complete stop and then proceed if the way is clear.

FLASHING YELLOW LIGHT – indicates that the bicyclist is to reduce his speed and then proceed with caution.

Traffic Control Markings

Markings have definite and important functions to perform in a proper scheme of traffic control. In some cases, they are used to supplement the regulations or warnings of other devices such as traffic signs and signals.

Pavement markings have definite limitations. They are obliterated by snow, may not be clearly visible when wet, and may not be very durable when subjected to heavy traffic.

Longitudinal pavement marking color use is as follows: Yellow lines delineate the seperation of traffic flows in opposing direction or mark the left boundary of the travel path at locations of particular hazard. White lines delineate the seperation of traffic flows in the same direction. Red markings delineate roadways that shall not be entered or used by the viewer of those markings.

Broken lines are permissive as opposed to solid lines being restrictive in character. Width of lines indicates the degree of emphasis. Double lines indicate maximum restrictions.

Curbs painted red or yellow indicate no parking.

Horizontial pavement markings serve as a guide for pedestrians. At non-intersectional locations, these markings legally establish the crosswalk. Horizontal line may also indicate a stop line to the bicyclist.

Other markings may indicate a railroad crossing, directional arrows and word markings.

Hand Signals

The use of hand signals now is commonly accepted as a safe riding practice. The motor vehicle laws of Montana require such signals. Signaling intention to turn, slow down, or stop gives the motorist behind, as well as the one approaching, an opportunity to anticipate the cyclist's movement. The bicycle operator should signal well in advance so that both hands are on the handlebars when the maneuver is made. This is especially important when the bicycle is equipped with hand brakes. Since all signals are made with the left hand, it is important that the control for the rear brake is located on the right handlebar. It is a simple matter to switch the brake control if necessary. Unless local regulations differ, standard hand signals are as follows: Left turn–hand and arm extended horizontally; Right turn–hand and arm extended upward; Stop and/or slow–hand and arm extended downward.

In order to turn left at intersections in the business area or where there is heavy or high-speed vehicular traffic, a bicyclist should dismount and follow the pedestrian crosswalk to the far right corner, then proceed across at right angles. In this way, he crosses one direction of traffic at a time. He should avoid heavily traveled routes if others are available. If riding on the sidewalk is allowed by ordinance, or if the driver is too young to be allowed in traffic, care should be taken when riding on the sidewalk to avoid striking or alarming pedestrians.

Skills

It is imperative that the cyclist develop skill in balancing and pedaling to avoid swerving into traffic, running off the edge of a sidewalk or highway, and to avoid hitting a pedestrian or fixed object at a narrow passing. Parents have a responsibility to be sure the child has the skill to cope with traffic before permitting him to drive on the street. Learners should be taught to coast with the pedals level (horizontal) in readiness to apply the brakes, and to avoid scraping the lower pedal on turns.

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When overtaking slow moving vehicles, a cyclist must be careful to avoid being struck or crowded by vehicles about to turn into a driveway or alley. The cyclist must be especially alert, when passing parked cars, for doors which might be opened in his path.

Parked cars with someone in the driver's seat should be given as wide a berth as possible. A cyclist should never ride into the roadway from the yard, driveway or alley without looking carefully in all directions.

It is highly desirable to remain inside the car during an automobile collision. Not so with a bicycle. The rider has to free himself from the bicycle immediately when a collision appears imminent. Design features that can be impacted by the rider or hinder his ability to free himself, such as high rise handlebars and gear-shift levers, should be avoided. The horizontal frame member in front of the rider on all boys' bicycles tends to make it more difficult for the rider to free himself from the bike. Therefore, learners and novice riders should use girls' style bicycles since they are easier to dismount in case of a collision.

Carrying more passengers than the bicycle is designed and equipped for is dangerous. Passengers obstruct the driver's vision, make balancing difficult and increase the danger of getting part of the body or clothing caught in the spokes. Two on a bicycle also greatly increases the stopping distance. The "polo" or "banana" seat on the high rise bicycle appears to be designed to carry two; however, such is not the case.

All human activity involves a degree of risk. What becomes important then is instilling in student a personal and social attitude toward their choices of action in traffic interaction. For this reason, at every age, the students are encouraged to consider the consequencies.

The primary consideration becomes how much risk a person is ready to accept in his life style.

Intersections

CONTROLLED – (a) If more than one vehicle operator arrives at a four-way stop at the same time, give the driver on the right the right-of-way, but only after they have come to a full stop. Courtesy dictates which driver proceeds.

(b) If only one of the crossroads has a stop sign, the driver in that lane must stop, then yield to all other vehicles and pedestrians.

(c) If there is a red light or stop sign, the bicyclist should stop behind the white line or marked or unmarked crosswalk.

UNCONTROLLED – (a) When two bicyclists arrive at an uncontrolled intersection at about the same time, the bicyclist on the left must yield the right-of-way to the driver on the right.

(b) The bicyclist should never enter the intersection until it is safe to enter.

(c) The bicyclist should yield the right-of-way to pedestrians that are in the crosswalk.

(d) The bicyclist should never make a turn in front of a moving vehicle.

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Facts

For the five years, 1965-69, only one year,1967, shows an even division between urban and rural areas for bicycle-motorcar fatalities; for the other four years, somewhat more than half occurred in rural areas (defined as having less than 2,500 inhabitants, except those areas classified "urban" by the U.S. Census Bureau).

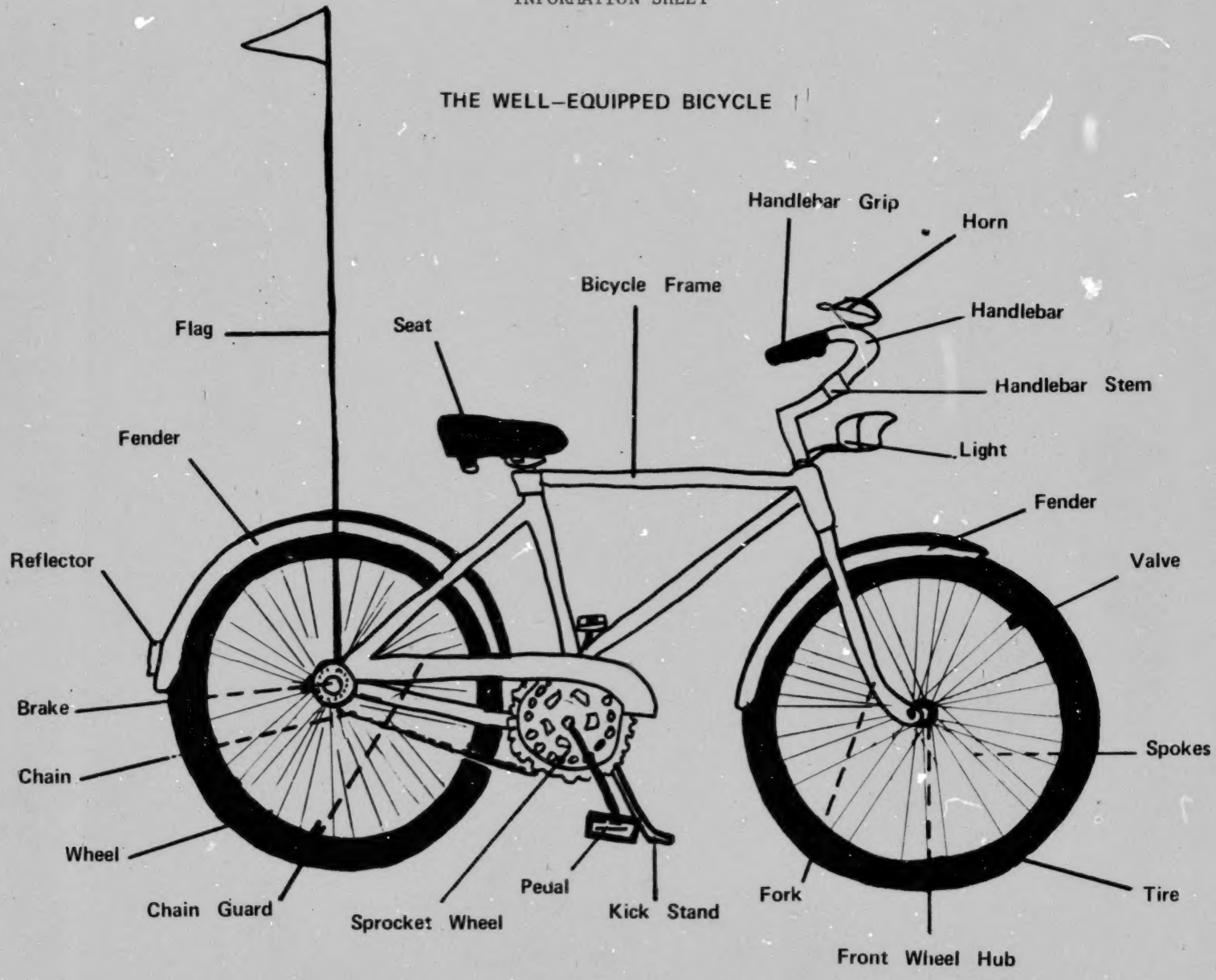
Nonfatal accidents are more likely to occur in residential areas (city streets), while fatal accidents are most likely to occur in open country (major and minor roads). This is probably related to the higher speeds of motorcars outside the city or town. Compared with all fatal motor vehicle accidents, fatal bicycle accidents show a larger proportion occurring where there is some kind of intersection of vehicle pathways. This is also true of nonfatal accidents.

One study found 96% of all bicycle-motorcar collisions occurred within one mile from home, and 57% within one block; also, intersections of some kind were the most frequent site of collisions: "... 82% of collisions relate to maneuvers by the bicyclist to enter into, to turn across, or cross through a flow of traffic."

In two studies, about 40% of the cyclists of grade-school age, said they ride on the right side of the street, 40–50% said they ride on both sides, and 10–15% said they ride on the left side. Some ride on the sidewalk. Apparently, there is some confusion, lack of knowledge, or disregard with respect to rules and regulation of safe operating procedures.

*Bicycle fatalities will exceed 10,000 in 1974.
*Ninety-percent of bicyclist fatalities due to bicycle-car collisions are males.
*In a study of 275 collisions with cars, 93% involved male bicylcists.
*In a 5 year study, over 60% of the bicycle-car fatalities and 75% of the injuries were in the age group of five through fourteen.
*After school and early evening hours are the peak periods for collisions.
*In a great number of bicycle-car collisions, the driver of the car is not cited for a violation.
*Twenty-percent of the bicycle collisions with cars involved a passenger or a hand-held load.
*It has been pointed out, many bicyclists were not riding their own bicycle.

THE WELL-EQUIPPED BICYCLE



PRE/POST SELF ASSESSMENT GRADE FIVE PRE ASSESSMENT _____

STUDENT _____ POST ASSESSMENT _____

Explanation: The Pre/Post Self Assessment is suggested for use at the beginning and/or end of this learning unit.
Directions: Write the correct answer in the line provided to the left of the following statements.

_____ 1. What are the four decision making procedures which can be used for safe bicycle operation?

_____ 2.

_____ 3.

_____ 4.

Write the answer *true* or *false* in the space provided.

_____ 5. Visual search is identifying hazards by visually scanning an area before you enter the area.

_____ 6. An emotion cannot be controlled.

_____ 7. Emotions can influence your ability to operate a bicycle safely.

_____ 8. In this state, a vehicle that is moving 25 mph or less must be signed with a slow moving vehicle sign.

_____ 9. When an operator of a bicycle moves slowly he is not taking any risks.

_____ 10. Operating a bicycle without shoes is an example of high risk acceptance.

_____ 11. Railroad crossings are not a hazard in town.

_____ 12. A bicycle operator can be affected by wind and dust.

_____ 13. Bicycle routes are in operation in some parts of the United States.

_____ 14. A route is the patn you follow to get from here to there.

_____ 15. Planning a route should include consideration about the capabilities of the bicycle and the operator.

_____ 16. It is the bicycle operator's responsibility to observe the signs, signals and road markings just as operators of cars do.

_____ 17. The shape of a vehicle, called vehicle profile, will affect the control of the vehicle.

_____ 18. The operator of a car cannot see a bicycle when it is in his blind spot.

_____ 19. It is much better to keep your hands on the handlebars than to give hand signals.

_____ 20. Total braking distance is the length of your skid marks.

Answers:

1.	Identify	6.	false	11.	false	16.	true
2.	Predict	7.	true	12.	true	17.	true
3.	Decide	8.	true	13.	true	18.	true
4.	Act	9.	false	14.	true	19.	false
5.	true	10.	true	15.	true	20.	false

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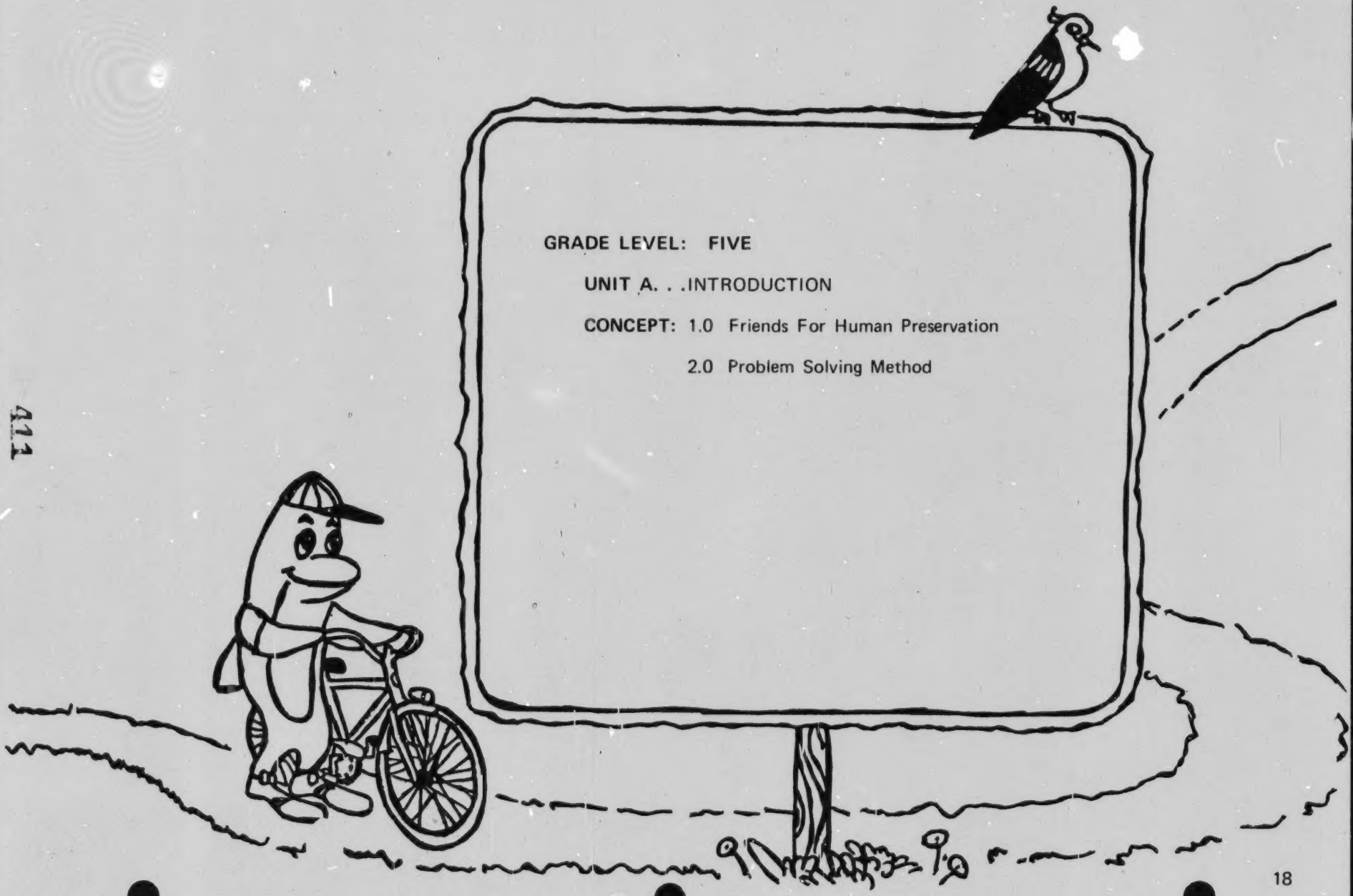
GRADE LEVEL: FIVE
UNIT A. . .INTRODUCTION
CONCEPT: 1.0 Friends For Human Preservation
2.0 Problem Solving Method

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Five

Applied Instruction: Language Arts
Social Studies

UNIT A. . . INTRODUCTION

CONCEPT: 1.0 Friends For Human Preservation

PERFORMANCE OBJECTIVE: The student will know the purpose of the friends for human preservation.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 7	1.1 Instructor/student discuss the purpose of the friends for human preservation.	1.1 Student understands the purpose of the friends for human preservation. Transparency Original No. 1
	1.2 Instructor/student discuss each friend's activity in human preservation.	1.2 Student understands how each friend for human preservation signifies an activity which preserves life.
Student Material Transparency Original No. 1		

NEW WORDS: human, preservation, pedestrian, passenger, bicyclist, symbol

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TRANSPARENCY ORIGINAL No. 1

A SYMBOL IS SOMETHING ACCEPTED AS STANDING FOR OR REPRESENTING SOMETHING ELSE.

THE SYMBOLS FOR HUMAN PRESERVATION IN MONTANA ARE:

DICK DOLPHIN

PATTY PENGUIN

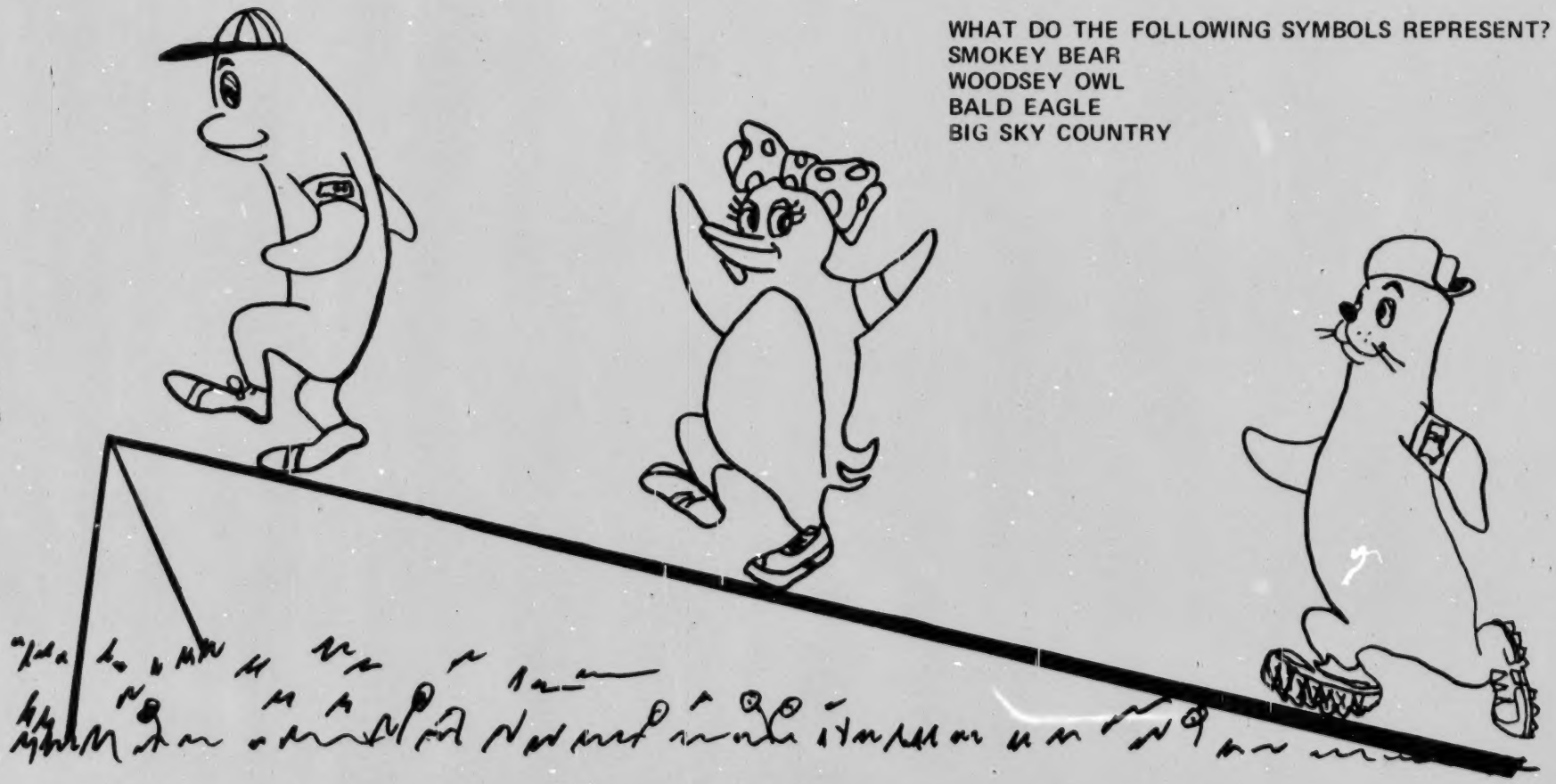
SEEMORE SEAL

BICYCLIST

PASSENGER

PEDESTRIAN

WHAT DO THE FOLLOWING SYMBOLS REPRESENT?
SMOKEY BEAR
WOODSEY OWL
BALD EAGLE
BIG SKY COUNTRY



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MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Five

Applied Instruction: Social Studies
Science

UNIT A. . .DECISION MAKING PROCESS

CONCEPT: 2.0 Problem Solving Method

PERFORMANCE OBJECTIVE: The student will evaluate the human functions and determine their purpose in the problem solving system.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: The basic system for every action is to: IDENTIFY the hazards. PREDICT what can happen. DECIDE what to do. ACT with the safest action. Information Sheet, page 9	2.1 Instructor explains the human behavior functions in decision making. a. identify b. predict c. decide d. act	2.1 Student evaluates the human functions of identify, predict, decide and act, then discuss their implication in operating situations. Individualized Learning Guide No 2 & 3
	2.2 Instructor explains the six operator tasks of operating a bicycle. a. basic control b. roadway assessment c. traffic assessment d. environment assessment e. vehicle assessment f. coping with mishaps	2.2 Student evaluates the six operator tasks and determines the factors which comprise each task.
Student Material Individualized Learning Guide No. 2 & 3	2.3 Instructor will show student how effective visual search can influence proper decisions and prevent collision.	2.3 Student understands the importance of visual search.

NEW WORDS: prevent, assessment, cope (coping), visual search, comprise

DIRECTIONS: Fill in the blank by listing one of the following decision making functions used: IDENTIFY, PREDICT, DECIDE, ACT. (some may be used more than once)

	TASK	FUNCTION
A.	Steering	_____
B.	Braking	_____
C.	Traffic assessment	_____
D.	Determine proper action	_____
E.	Accelerate	_____
F.	Direction an animal may move	_____

In the following situations how would you use the decision making system?

1. Late at night a vehicle is approaching in your lane.

2. A ball rolls from between two parked cars.

3. Chain falls off your bike.

4. Bike doesn't fit your size.

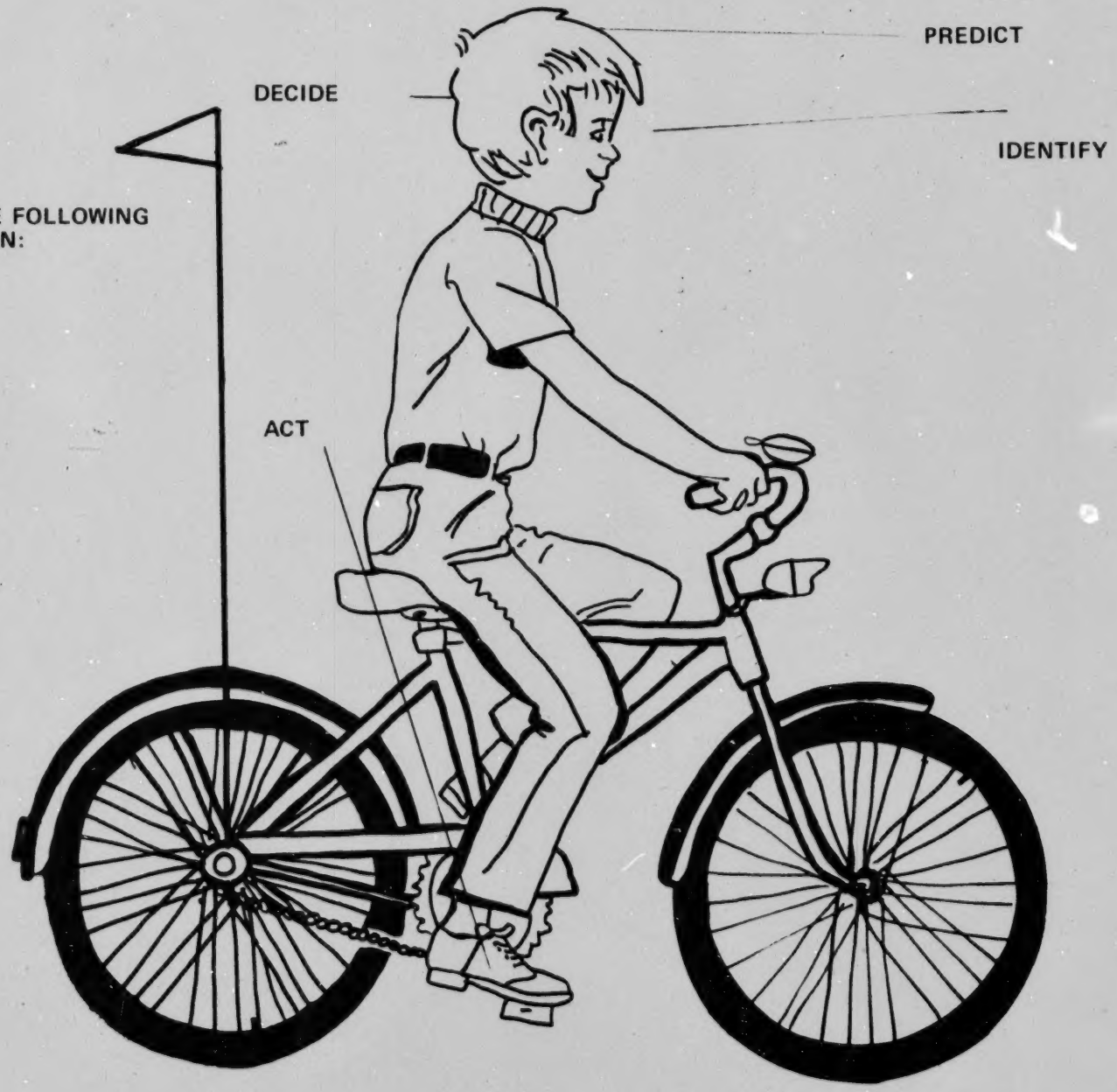
5. Knowing that your brakes are faulty.

6. Spokes are loose and bending.

7. Tire breaks open.

8. Come to a blind corner.

TRANSPARENCY ORIGINAL No. 3



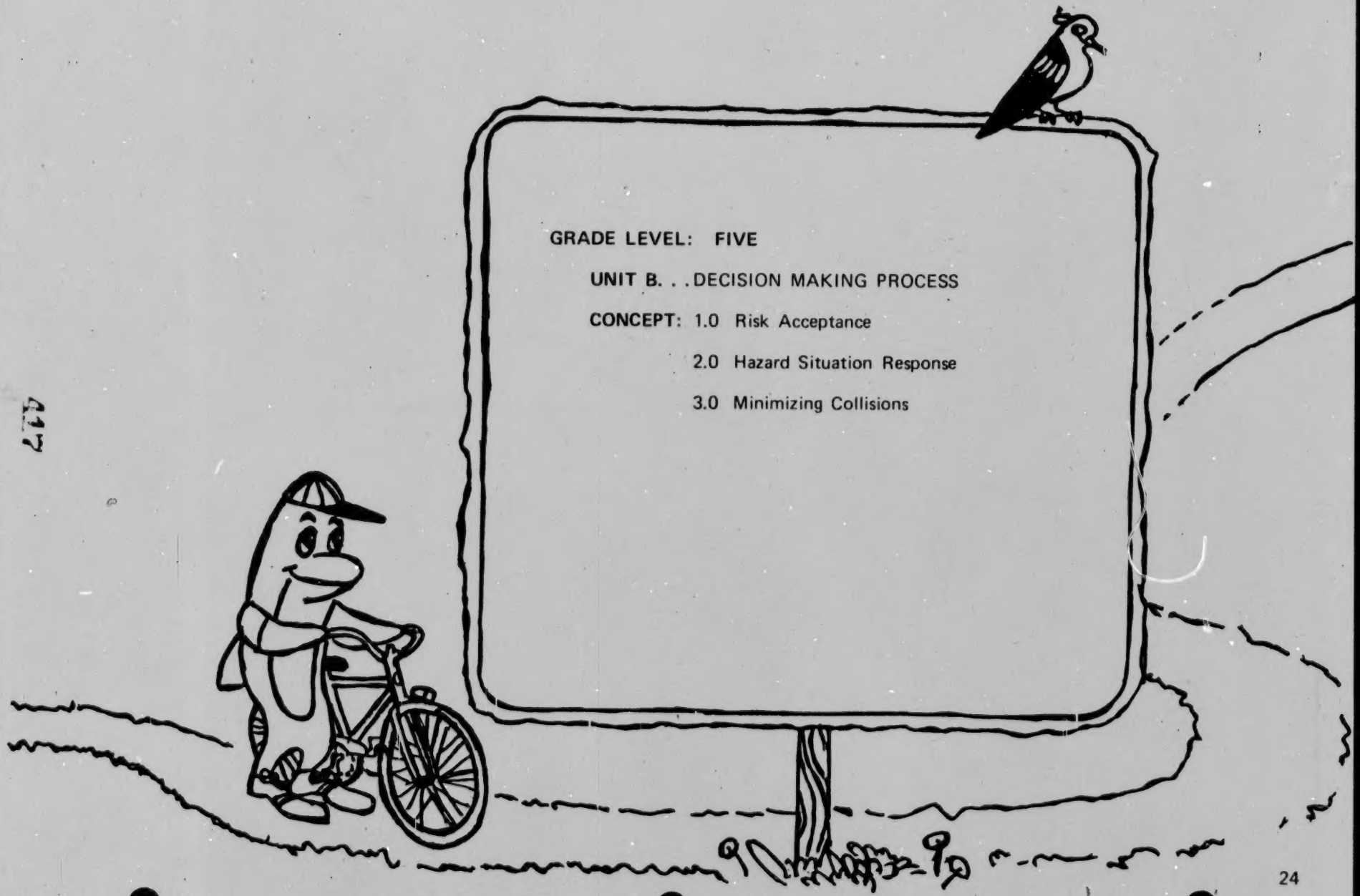
EXPLAIN WHAT EACH OF THE FOLLOWING MEANS ON THE ILLUSTRATION:

IDENTIFY:

PREDICT:

DECIDE:

ACT:


GRADE LEVEL: FIVE
UNIT B. . . DECISION MAKING PROCESS
CONCEPT: 1.0 Risk Acceptance
2.0 Hazard Situation Response
3.0 Minimizing Collisions

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MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Five

Applied Instruction: Social Studies
Physical Education

UNIT B. . .DECISION MAKING PROCESS

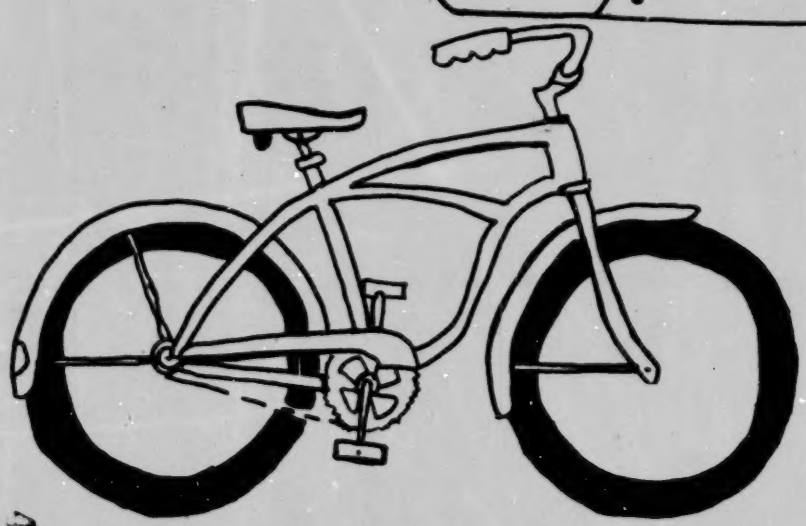
CONCEPT: 1.0 Risk Acceptance

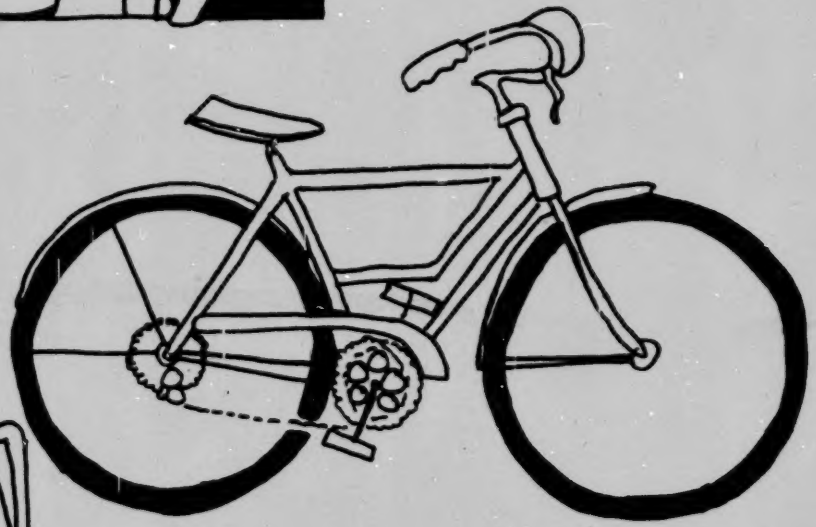
PERFORMANCE OBJECTIVE: The student will understand the increased risk of operating larger bicycles.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Pictures of bicycle types. Information Sheet, page 11	1.1 Instructor guides student in illustrating the increased risk of operating larger bicycles.	1.1 Student will discuss risk acceptance on a larger bicycle and/or "high rise" bicycle. Transparency Original No. 4
	1.2 Instructor leads the student in discussion of risks involved in the mishap of larger bicycle operation. a. Morals. b. Drugs. c. Know operation of larger vehicles. d. Increased speed.	1.2 Student discusses risk and responsibilities of bicycle's operation.
Student Material Transparency Original No. 4 & 5	1.3 Instructor/student determine some of the risks four wheeled vehicle drivers accept in leisure and business driving.	1.3 Student discusses what risks a four wheeled vehicle driver takes.
Reinforcement Activity Magazine pictures illustrating risk factors, in driving.	1.4 Instructor assists student in listing risk reduction factors.	1.4 Student lists ways to reduce risk. Transparency Original No. 5

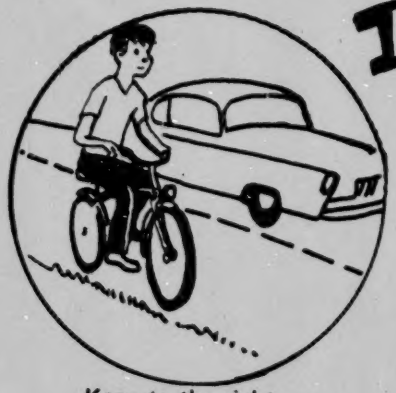
NEW WORDS: responsibility, risk

Compare bicycle design. How does design affect safety?





DO



Keep to the right.

Full stop. Look each direction.

Walk bike when crossing traffic.

Watch for danger . . . keep control.

Give right-of-way.

Keep alert! Avoid being trapped.

Park off roadway.

Ride single file.

DO NOT

RIDE ON SNOW AND ICE!

CARRY PASSENGERS!

HITCH RIDES!

STUNT RIDE!

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MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Five

Applied Instruction: Physical Education
Health

UNIT B. . .DECISION MAKING PROCESS

CONCEPT: 2.0 Hazard Situation Response

PERFORMANCE OBJECTIVE: The student will evaluate the correct response to hazardous traffic situations.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Film: "I'm No Fool With A Bicycle" No. 7823 State Audiovisual Library	2.1 Instructor/student discuss the human functions of handling hazardous situations.	2.1 Student discusses and explains the human functions and possible driver reactions to hazardous situations.
	2.2 Instructor discusses identify, predict, decide, act, problem solving method in hazardous situations.	2.2 Student identifies possible hazardous situations and the response to such conditions.
	2.3 Instructor initiates a discussion on potential emergency situations arising from the unexpected actions of other drivers.	2.3 Student formulates procedures for hazardous situations. *Individualized Learning Guide No. 6*
Student Material Individualized Learning Guide No. 6		
Reinforcement Activity A contest can be held with the list of hazards. Have two groups competing as in a spell down.		

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NEW WORDS: potential, downgrade, imminent

Directions: Formulate the procedure you would take in the following hazardous situations.

HAZARD

1. The truck ahead is braking hard, your brakes do not hold . . .
2. Road narrows ahead, hill steepens and bends to the right out of sight . . .
3. Intersection, traffic slows, your brakes do not hold . . .
4. An overtaking car cuts in front of you, braking hard; you have to brake hard to avoid him and skid to the left . . .
5. Driving at night and your headlight suddenly fails . . .
6. A sharp curve suddenly appears when driving at night . . .
7. You are operating in rain, suddenly your bicycle skids left . . .
8. At night, a car suddenly approaches with headlights glaring, you can't see . . .
9. At 15 mph, another driver starts tail–gating . . .
10. A bee attacks the operator . . .
11. Loss of chain . . .
12. Meeting road equipment . . .
13. Suddenly encounter a washed out area of the road . . .
14. An accident occurs 50 feet ahead, you are traveling at 20 mph . . .
15. Your pant–leg catches in the chain while in heavy traffic on a downgrade . . .
16. A car approaching from the rear, is going to hit you . . .
17. Your bicycle suddenly goes into a skid on a wet roaad . . .
18. A group of hikers are walking together on a road . . .
19. The approaching car is weaving back and forth across the center line . . .
20. On a two–lane highway, a car suddenly pulls out of a side road into your path . . .
21. Your pedals suddenly stick . . .
22. Livestock are being hearded on a road . . .
23. A cloudburst storm appears suddenly . . .

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Five

Applied Instruction: Social Studies
Language Arts

UNIT B. . ,DECISION MAKING PROCESS

CONCEPT: 3.0 Minimizing Collisions

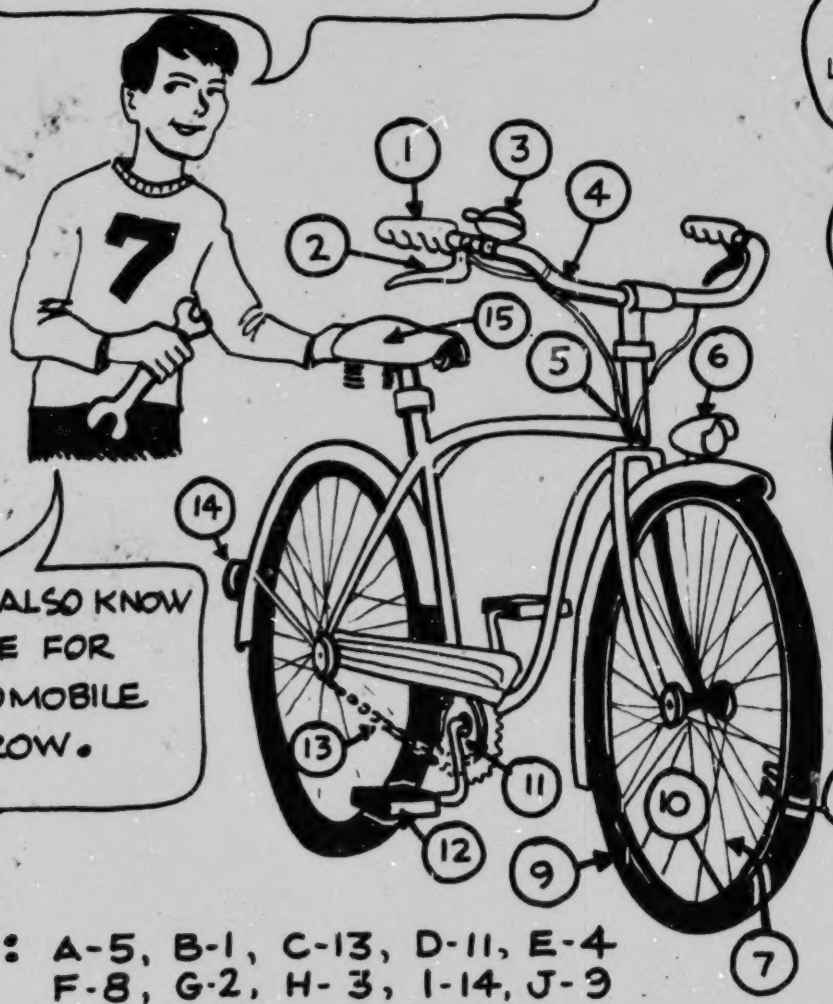
PERFORMANCE OBJECTIVE: The student will know ways of minimizing bicycle collisions.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Film: "Bicycling With Safety" No. 3917 State Audiovisual Library Information Sheet, page 16	3.1 Instructor cites an example of a bicycle collision and ways of minimizing collisions. **Trigger Questions** a. How will keeping your bicycle in good repair minimize collisions? b. What do we mean when we say "look out for the other guy"?	3.1 Student discusses questions and relates own experiences to bicycle collisions. Individualized Learning Guide No. 7
Student Materials Individualized Learning Guide No. 7	3.2 Instructor leads students in listing the distractions encountered while operating a bicycle including those caused by surroundings and environment. Instructor guides students in formulating solutions to those problems by story writing. **Distractions** a. sport activity b. greeting a friend c. animals d. airplanes e. flying insects f. on-coming traffic g. emergency vehicles h. strange noises	3.2 Student lists eight distractions which commonly occur that might cause a bicycle collision.

NEW WORDS: distractions, formulating, solutions

THE OPERATOR ... WHO KNOWS AND CARES FOR THE PARTS OF HIS BICYCLE TODAY ...

... WILL ALSO KNOW AND CARE FOR HIS AUTOMOBILE TOMORROW.



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PUT THE CORRECT NUMBER IN THE BOX WHICH DESCRIBES THE NUMBERED PART.

A FORK BEARINGS
Lubricate adjust

F TIRE VALVE
Inspect for leaks

K SPOKES
Replace broken ones

B HANDLE GRIPS
Replace if worn cement tightly

G COASTER BRAKES
Lubricate and adjust

L PEDALS
Lubricate and tighten

C CHAIN
Clean and Lubricate

H WARNING DEVICE
Must be heard 100 ft. away

M WHEELS
Keep nuts tight and bearings oiled

D CRANK HANGAR
Keep clean, greased and tight

I REFLECTOR
Must be visible at 300 ft.

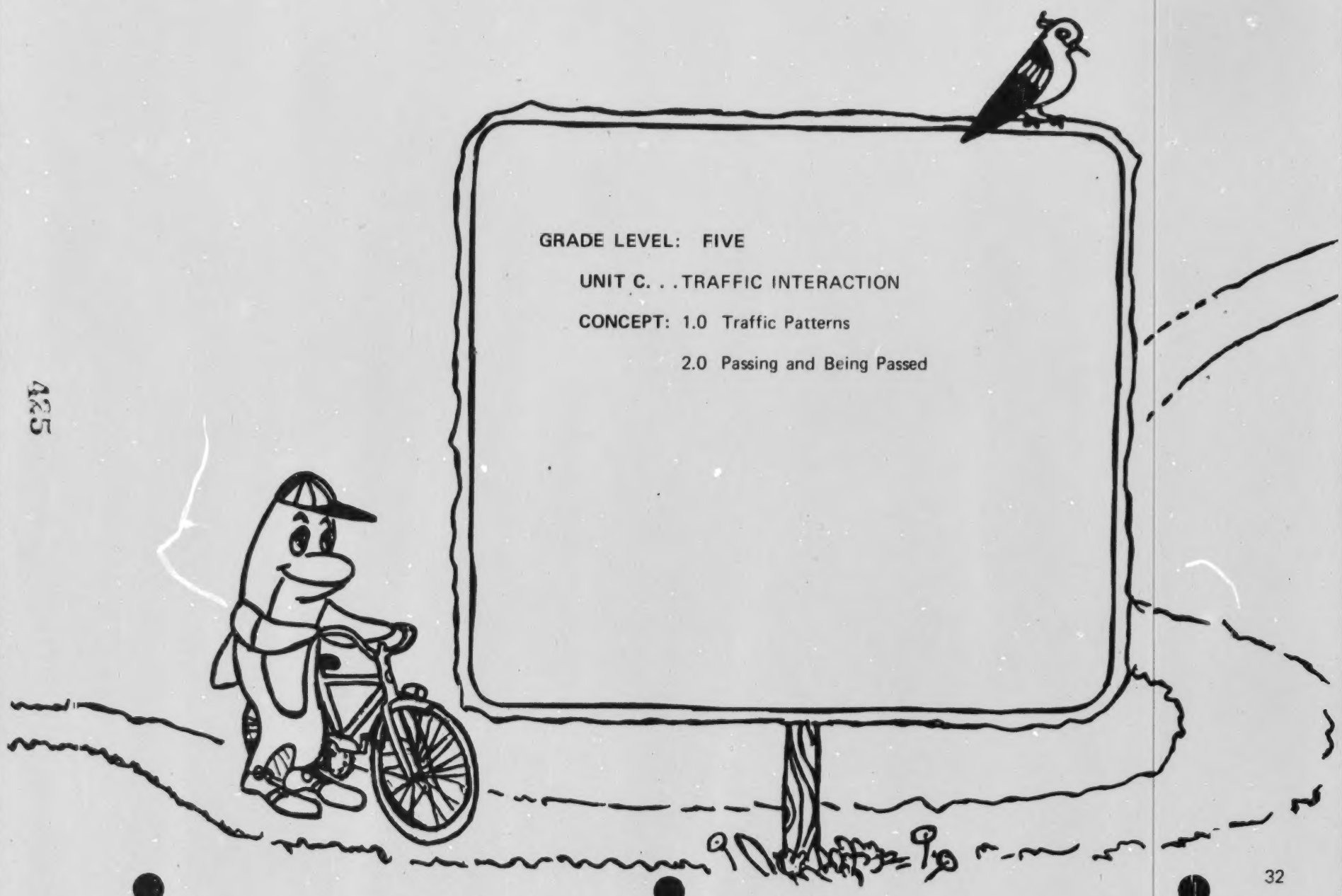
N LIGHT
Must be visible at 500 ft.

E HANDLE BARS
Adjust and tighten Set for proper height

J TIRES
Inflate to correct pressure

O SADDLE
Adjust to proper height. Tighten all nuts.

ANSWERS: A-5, B-1, C-13, D-11, E-4
F-8, G-2, H-3, I-14, J-3
K-7, L-12, M-10, N-6, O-15



GRADE LEVEL: FIVE

UNIT C. . . TRAFFIC INTERACTION

CONCEPT: 1.0 Traffic Patterns

2.0 Passing and Being Passed

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Five

Applied Instruction: Social Studies

UNIT C. . .TRAFFIC INTERACTION

CONCEPT: 1.0 Traffic Patterns

PERFORMANCE OBJECTIVE: The student will identify correct operating procedure in various environments.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Film: "Bicycle Safety" No. 2795 "You and Your Bicycle" No. 2184 Note: Students should be familiar with bike paths although few are available in Montana. **Student Material** Transparency Original No. 8	1.1 Instructor has student verbally follow correct procedure for: a. lane placement b. parking lines c. speed d. pedestrian crossings e. parks f. bikeways g. one-way streets **Trigger Questions** a. Where do you operate a bicycle in a parking lot? b. Should you cross over parking lines? c. Is your speed important? d. Are pedestrians a hazard? e. Does traffic always obey the painted lines in a parking lot?	1.1 Student illustrates correct procedure for bicycle operation in various traffic situations. Transparency Original No. 8
	1.2 Instructor has student look for possible hazards in a park: a. speed b. parking area c. traffic d. signs e. pedestrian activities f. non-designated paths **Trigger Questions** a. Is your speed important? b. Are drivers looking for bicycles?	1.2 Student identifies hazards in a park.

(cont. on next page)

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Five

Applied Instruction: Social Studies

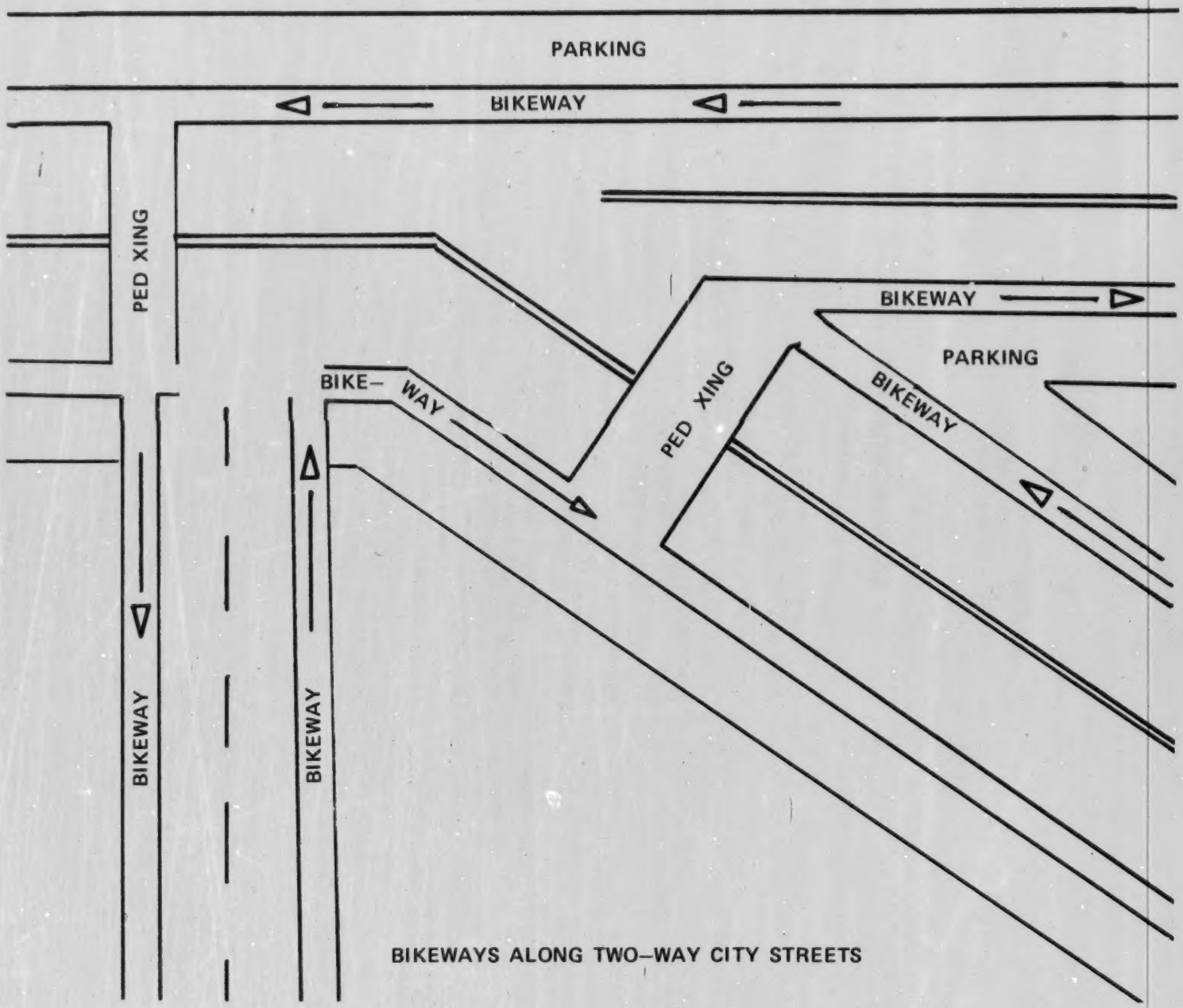
UNIT C. . .TRAFFIC INTERACTION

CONCEPT: 1.0 Traffic Patterns (cont.)

PERFORMANCE OBJECTIVE: The student will identify correct operating procedure in various environments.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
	c. Can you rely on traffic to look for you? d. Do all parks correctly mark traffic area with signs? e. What kind of pedestrian traffic would you expect to find in a park? f. Should you ride on the lawn?	
	1.3 Instructor has students follow correct procedure on bikeways. a. signs b. pedestrians c. parking d. lane placement e. intersections **Trigger Questions** a. Are there separate signs on a bikeway? b. Must a bicycle yield to a pedestrian? c. What is the best way to park your bicycle? d. Should you leave the bicycle lane if one is provided? e. What kind of marking is on a bikeway for a busy intersection?	1.3 Student illustrates correct habits in a bikeway. Transparency Original No. 8

TRANSPARENCY ORIGINAL No. 8



BIKEWAYS ALONG TWO–WAY CITY STREETS

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Five

Applied Instruction: Social Studies
Language Arts

UNIT C. . .TRAFFIC INTERACTION

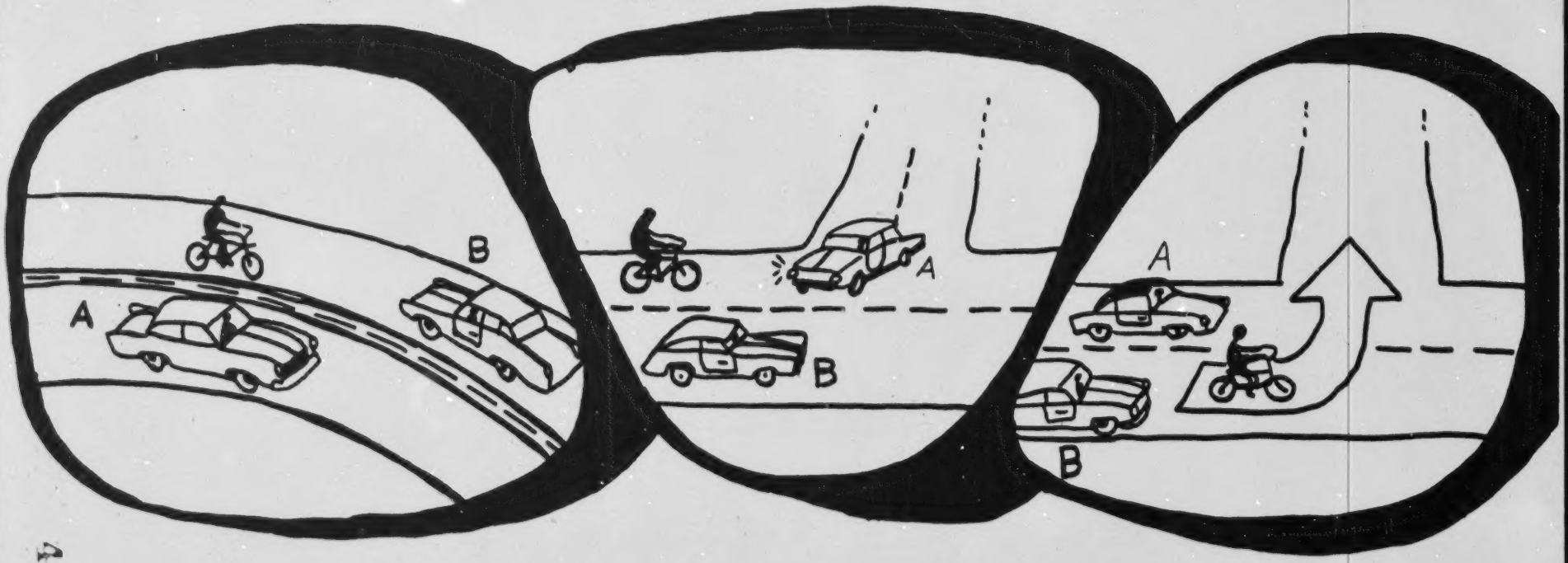
CONCEPT: 2.0 Passing and Being Passed

PERFORMANCE OBJECTIVE: The student will describe and illustrate correct passing and being passed procedure.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material	2.1 Instructor compares passing and lane changing. Reference should be made to the fact that the car or bicycle being passed and oncoming cars will complicate this maneuver. a. multiple lane and one-way 1. lane change only b. two-way 1. risk of head-on collision 2. danger of not having a way out 3. distance required to pass **Trigger Questions** a. Why is it more dangerous to pass than to make a lane change?	2.1 Student compares passing and lane changing and identifies the similarities and differences.
Student Material Transparency Original No. 9 & 10	2.2 Instructor leads group discussion of passing maneuver and its high criticality. **Trigger Questions** a. When is it necessary to pass? b. When should passing be avoided?	2.2 Student explains the procedure for passing another vehicle. Transparency Original No. 9
	2.3 Instructor defines areas of "no passing" and discusses reasons for such designation.	2.3 Student defines areas in which passing is prohibited. Transparency Original No. 9
	2.4 Instructor initiates group discussion concerning hazards of being passed.	2.4 Student identifies possible hazards of being passed.
	2.5 Instructor/student discussion relating to: a. maintaining speed when being passed. b. blind spot observation. c. vehicle positioning.	2.5 Student evaluates procedures for minimizing conflicts while being passed. Transparency Original No. 10
	2.6 Group discussion of the effects of the different types of vehicles passing.	2.6 Student identifies problems associated with being passed by various sized vehicles.

NEW WORDS: maneuver, multiple lane, similarities, identification, prohibited, observation, maintain, obstacle, mock

TRANSPARENCY ORIGINAL No. 9



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1. WHAT IS WRONG HERE?
2. WHAT EVASIVE ACTION SHOULD DRIVER 'B' TAKE?
3. EVEN IF THERE IS NO ON–COMING TRAFFIC, WHAT DIFFICULTY DOES THE BICYCLE OPERATOR CONFRONT IN COMPLETING THE PASS?
4. WHAT EVASIVE ACTION SHOULD DRIVER 'A' TAKE?

1. WHAT CHOICE DOES THE BICYCLE OPERATOR HAVE?
2. WHAT CHOICE DOES DRIVER 'B' HAVE?
3. WHAT CHOICE DOES DRIVER 'A' HAVE?

1. WHAT CHOICE DOES DRIVER 'A' HAVE?
2. WHAT CHOICE DOES THE BICYCLE OPERATOR HAVE?

TRANSPARENCY ORIGINAL No. 10

WHAT STEPS DO YOU FOLLOW IN THIS SITUATION TO AVOID A CRASH?

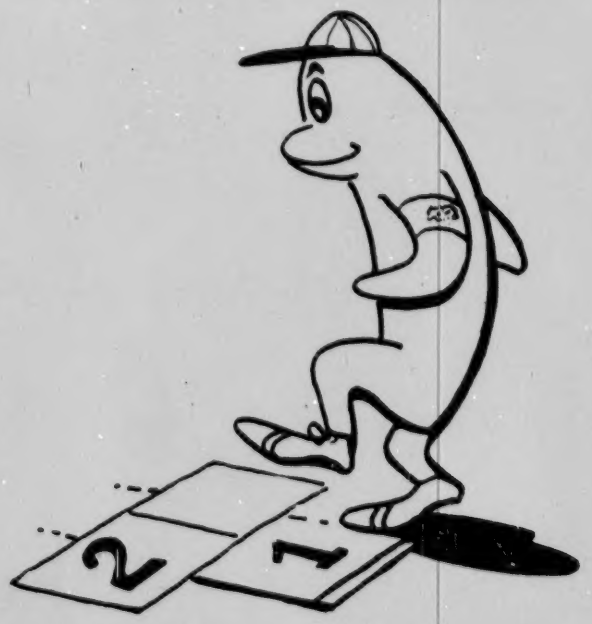
1.

2.

3.

4.

5.



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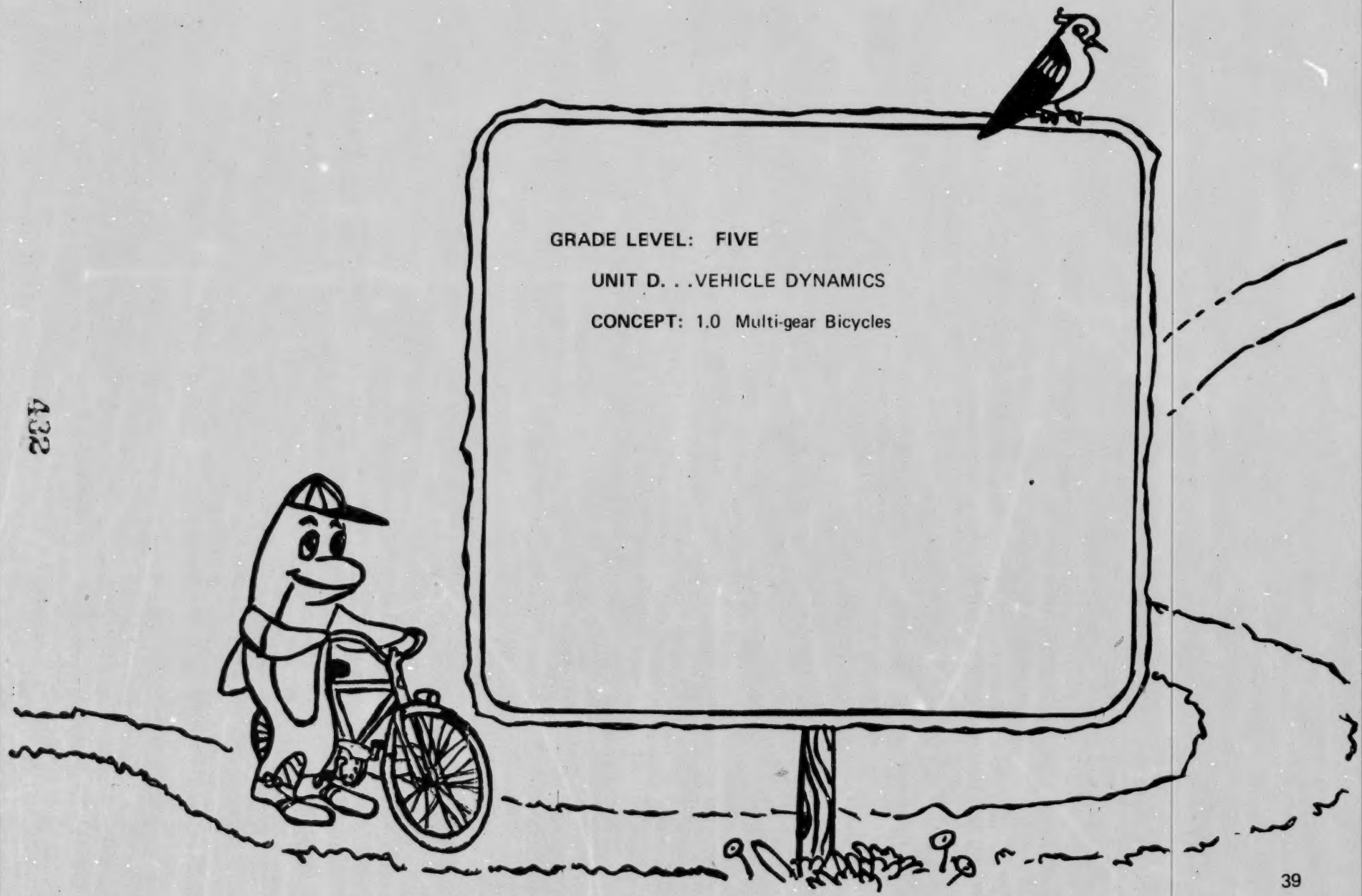
GRADE LEVEL: FIVE
UNIT D. . .VEHICLE DYNAMICS
CONCEPT: 1.0 Multi-gear Bicycles

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Five

Applied Instruction: Math
Science
Language Arts

UNIT D. . .VEHICLE DYNAMICS

CONCEPT: 1.0 Multi-gear Bicycles

PERFORMANCE OBJECTIVE: The student will recognize control characteristics of multi-geared bicycles.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: 3-speed bicycles are capable of cruising at 20-25 mph; school zone speed is 15 mph. Information Sheet, page 11-14	1.1 Instructor initiates a discussion on relationship of speed and braking distance. **Trigger Questions** a. How does increased speed affect total braking distances, reaction time, etc?	1.1 Student discusses braking distance and speed relationship on multi-geared bicycles.
	1.2 Instructor initiates a discussion on differences in braking and steering as affected by wide tire or a narrow tire? Why? **Trigger Questions** a. Which tire stops fastest, a wide tire or a narrow tire? Why? b. Which tire corners best, a wide tire or a narrow tire? Why	1.2 Student discusses the effect of narrow tires on braking and steering.
Student Material **Reinforcement Activity** Set up lab shown on page 42	1.3 Instructor sets up lab shown on reinforcement and has students write whether objects travel smoothly in a straight line. Instructor initiates a discussion on how this experiment applies to bicycles. **Trigger Questions** a. Does a bicycle travel smoothly in a straight line on a rocky road? b. How does this affect steering?	1.3 Student realizes the effect of hitting small objects, on steering and stability.

(cont. on next page)

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Five

Applied Instruction: Math
Science
Language Arts

UNIT D. . .VEHICLE DYNAMICS

CONCEPT: 1.0 Multi-gear Bicycles (cont.)

PERFORMANCE OBJECTIVE: The student will recognize control characteristics of multi-geared bicycles.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Reinforcement Activity Students write to their highway patrol office to get information on speed limits, then write to a bicycle dealer or manufacturer to get speed attainable by multi-geared bicycles.	1.4 Instructor initiates a discussion on speed limits and multi-geared bicycles. **Trigger Questions** a. What is the speed limit in a school zone? b. Can a multi-geared bicycle go that fast?	1.4 Student lists advantages and disadvantages of speed limit.
One student or a group may want to investigate tires used on Indy 500 cars and present findings to the class.	1.5 Instructor/students compare Indy 500 tires to bicycles. **Trigger Questions** a. Do Indy 500 cars use wide or narrow tires? Why? b. What part does friction play?	1.5 Student understands the function of tires.

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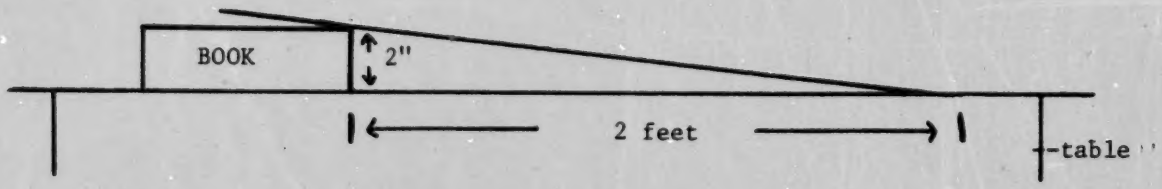
NEW WORDS: reaction, relationship, investigate, manufacturer, friction



MATERIALS:

piece of cardboard–2' x 1'

coarse sandpaper to cover cardboard (one side)

a marble, pingpong ball, golf ball, and softball

DIRECTIONS:

1. set up cardboard ramp according to diagram
2. have students roll objects down ramp and *note* whether they travel smoothly in a straight line

GRADE LEVEL: FIVE

UNIT E. . .CAREER AWARENESS

CONCEPT: 1.0 Careers

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Four-Five

Applied Instruction: Language Arts
Social Studies

UNIT E. . .CAREER AWARENESS

CONCEPT: 1.0 Career

PERFORMANCE OBJECTIVE: The student will be aware of careers in transportation.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material	1.1 Instructor/student discuss the careers related to school transportation.	1.1 Student identifies careers which are related to bicycle transportation. Transparency Original No. 11
Student Material Transparency Original No. 11		
Reinforcement Activity Career Awareness, page 45		

NEW WORDS: career, awareness, related

CAREER AWARENESS

LEVEL	BICYCLE	RELATED TO BICYCLING
4–5	SALES PERSON	DOCTOR
	BIKE REPAIR	AUTO DRIVER
	POLICEMAN	SANITATION ENGINEER
	SCHOOL PATROL	PLAYGROUND SUPERVISOR
	STREET REPAIRMAN	SERVICE STATION ATTENDANT
	MAINTENANCE OF STREETS, SIDEWALKS, AND LIGHTS	PARK AND RECREATION OCCUPATIONS
	BICYCLE DESIGNER	PRODUCTION AND DISTRIBUTION OF BICYCLES
		PROFESSIONAL BICYCLE RACER
		TEACHER
		PARENT
		DESIGNER OF CLOTHES FOR BICYCLING
		BIKE FLAG PRODUCTION

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REINFORCEMENT ACTIVITY

Career Awareness Level 4--5

The following is a list of possible activities which can be introduced to create awareness of occupations integrated into the instructional areas:

MATH
1. Word problems related to odd jobs the student is paid for.
2. Figure weight capacity of vehicles, and cost of transportation.
3. Compute tolls and determine how they are used.
4. Figure the cost of travel by commercial means.

SOCIAL STUDIES
1. Discuss the relationship of various types of transportation.
2. Discover the social impact of various commercial and private transportation.

ART
1. Discuss color significance in traffice controls.
2. Draw pictures of various transportation and related careers.

MUSIC
1. Learn how folk music, related to careers in transportation, originated.
2. Learn the music of a specific group of transportatior related occupations.

SCIENCE AND HEALTH
1. Perform experiments using energy.
2. Discuss how a road is built and what considerations must be made about route. Who makes the determinations?

LANGUAGE ARTS
1. Have a discussion about transportaiton occupations and write a description of one or more jobs.
2. Learn why the vocabulary of a specific group of occupations is different from another.

PHYSICAL EDUCATION
1. Discuss the impact on the physical body from selected occupations.
2. Determine how good physical health helps to keep an individual mentally alert for his job.

The general plan for an introduction of career related fields is for the observable and familiar careers to be introduced at the early levels of kindergarten and grade one. The directly related careers are mentioned as well as a repetition of the observable and familiar careers in levels two and three.

More complex and indirectly related careers as well as the previously mentioned careers at levels four and five. Naturally, the complexity and extent of the traffic and transportation fields are so far reaching that only a few select careers are listed, a complete list would demand a volume. Ocassionally, an exotic career should be brought to the attention of the student to stimulate thought on the part of the student, and to motivate students to explore the extent of the transportation field.

Grade six explores the way to get a job. Students at grade six often do have some jobs which are involved in transportaiton to an extent, such as clearing sidewalks, and it should be explored as to how this can become a business like venture.

A perusal by the teacher of a volume of occupational titles could be useful to refresh himself with the depth and scope of the traffic and transportation field.

On the left is a list of suggested activities which can be integrated into the curriculum. This list is limited but may be a start to help the teacher develop a vast career awareness in the student.

APPENDICES

CROSSWORD PUZZLE	A
KEY	B
CROSSWORD PUZZLE	C
KEY	D
ARM PATCH	E
SIGN WORD PUZZLE	F
KEY	G
SONG (ARE YOU RIDING?)	H
BIKE TEST	I
SKILLS–SELF ASSESSMENT	J
BIKE ROUTE	K
MODEL TRAFFIC LIGHT	L
SAMPLE ACTIVITIES	M
ROUTE GAME	N
FESTIVAL OF BIKES	O–S

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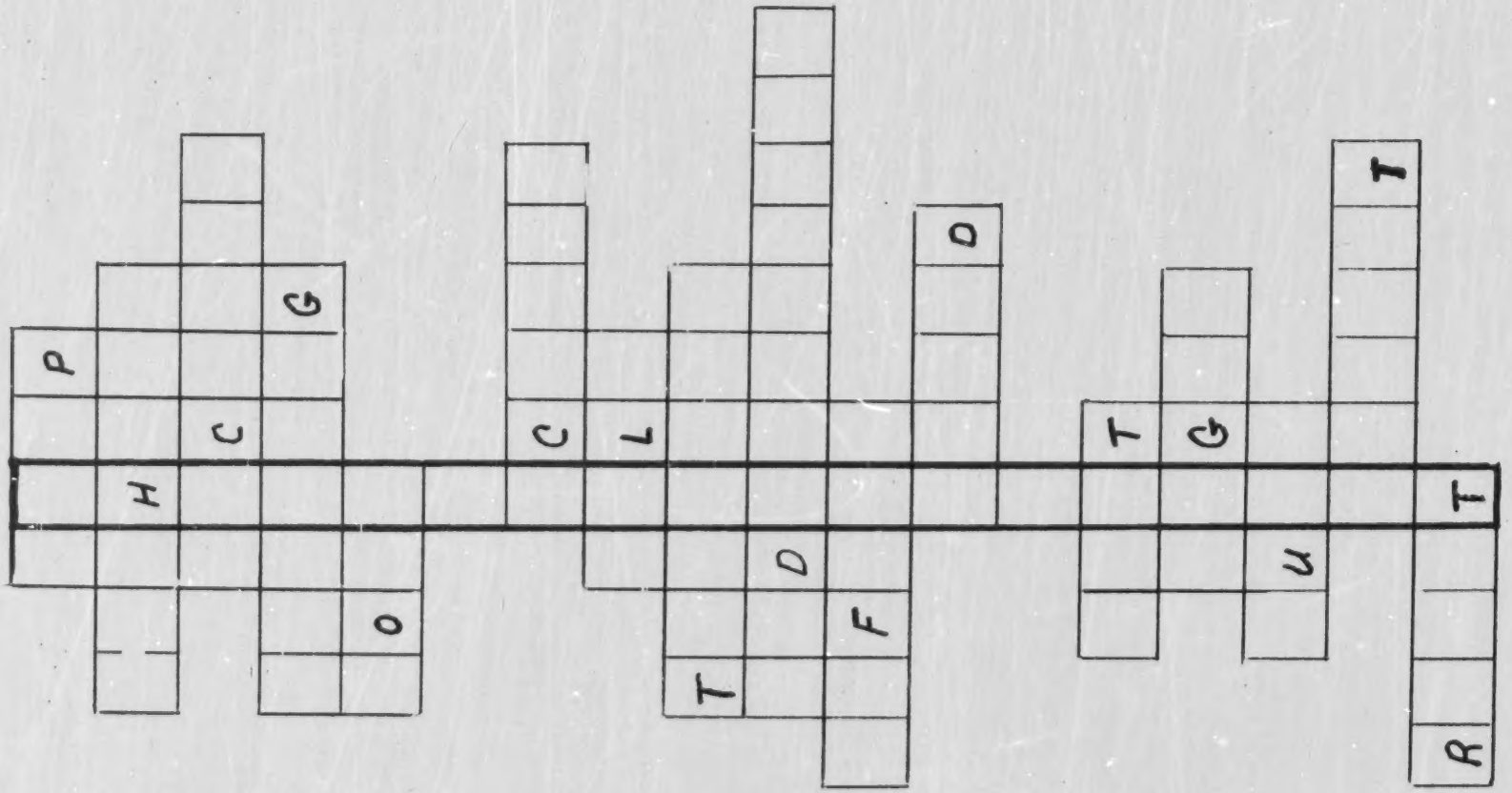
CROSSWORD PUZZLE

FILL IN THE TRAFFIC SAFETY WORDS IN THE CORRECT SQUARES AND WATCH THE MESSAGE APPEAR IN THE *STARRED COLUMN!

SIGNS	BICYCLE	LEFT	STREET
HIGHWAY	PEDESTRIANS	LOOK	WARNING
CURB	SCHOOL	RIGHT	STOP
YIELD	WALK	SAFETY	TRAFFIC



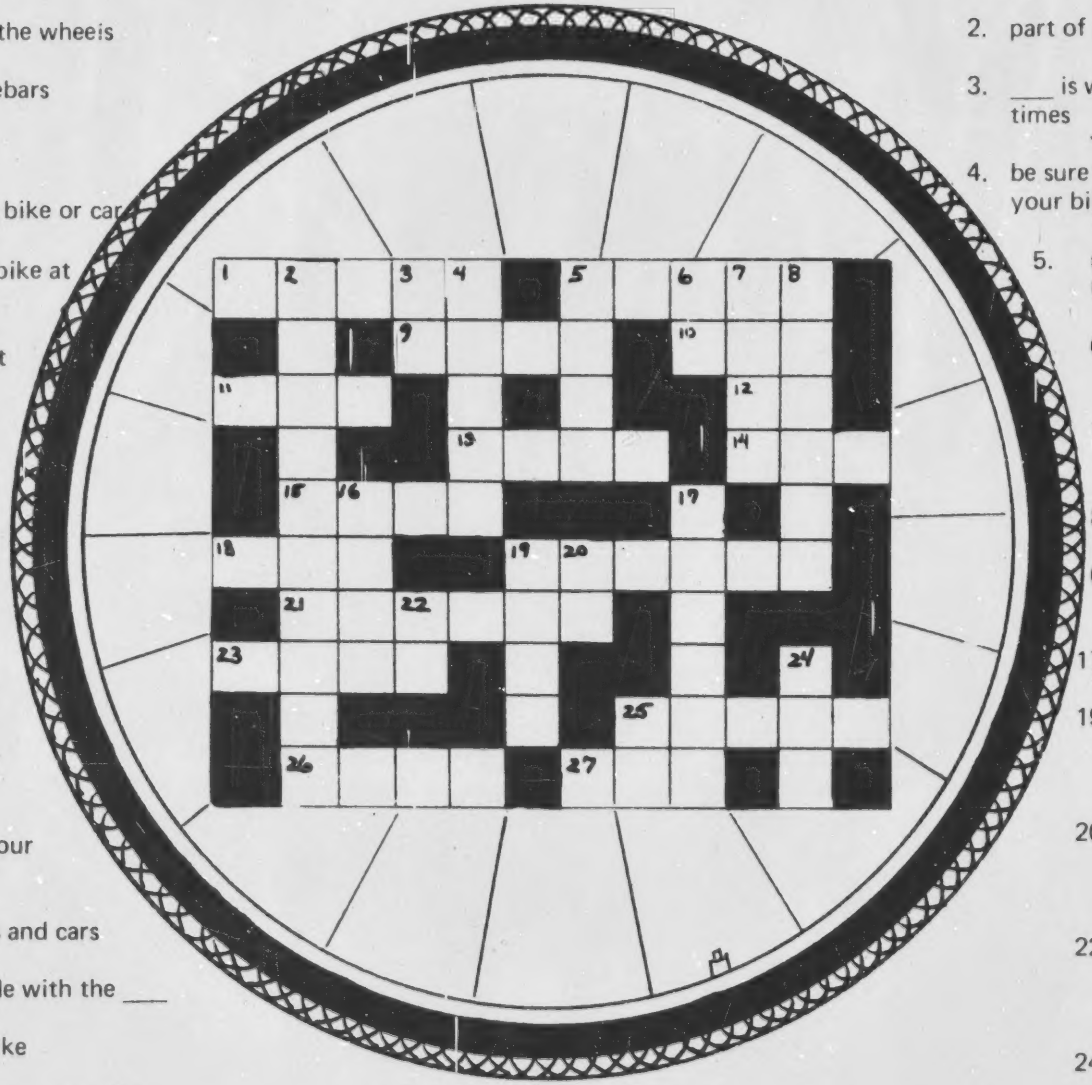
KEY

CROSSWORD PUZZLE

TRY THIS BICYCLE SAFETY PUZZLE FOR A FUN CHALLENGE!

ACROSS

1. part on a bike that turns the wheels
5. rubber part on the handlebars
9. rubber part of the wheel
10. never ___ while driving a bike or car
11. only ___ should be on a bike at a time
12. drive ___ that you do not endanger yourself or anyone else
13. a warning device on a bike or car
14. do not gaze at the ___ while driving your bike
15. the ___ side of the road is for walking only
18. a place where bikes never go
19. parts of a bike you put your feet on
21. stopping devices on bikes and cars
23. on a bike, signals are made with the ___
25. always be ___ on your bike
26. a sign that says this means not to drive fast
27. always ___ caution while driving a bike or car

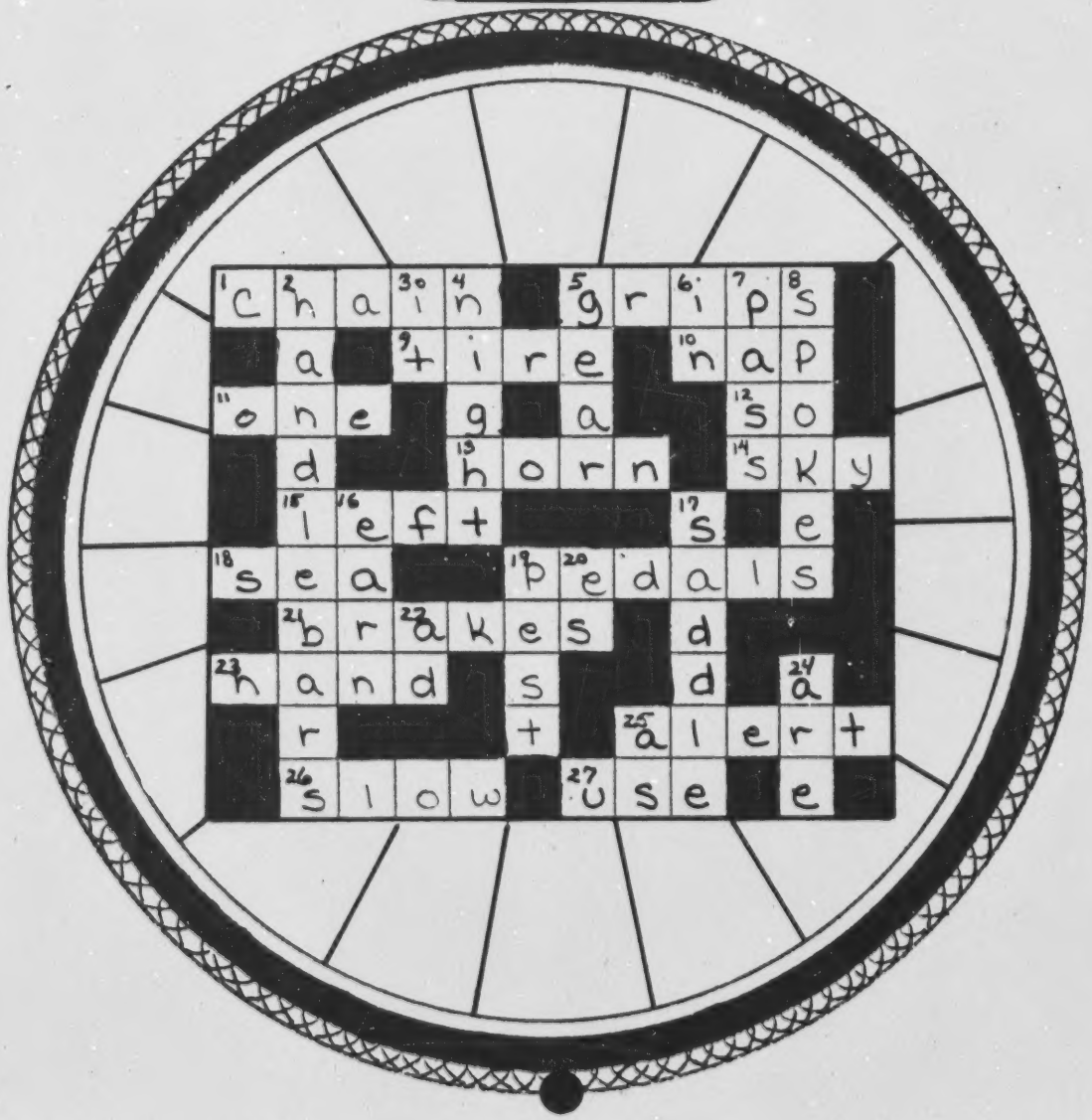


Words Used:
use–alert–grips–nap–so–sky–pedals–chain–horn–tire–slow–hand–one–brakes–sea–gear–left–handlebars–spokes–are–saddle–earn–pass–night–pest–as–in–it

DOWN

2. part of a bike you hold on to
3. ___ is wise to be careful at all times
4. be sure to have a good light on your bike for ___ riding
5. round, toothed part that moves the chain
6. never weave ___ and out of traffic
7. to drive around another vehicle
8. part inside the wheel
6. you must ___ the right to drive a bike or car
17. the seat on a bike
19. only a ___ would beg to hitch a ride on another's bike
20. bicycle drivers must obey all signs and other traffic control devic_ _
22. _ _vise your friends to put their bikes safely away when not in use
24. the fork bearings ___ parts which must be lubricated
25. learn to drive a bike ___ well ___ you can

Key


1 C 2 h a 3 i 4 n 5 g r 6 i 7 p 8 s
a 9 t i r e 10 n a p
11 o n e g a 12 s o
d 13 h o r n 14 s k y
15 l 16 e f t 17 s e
18 s e a 19 p 20 e d a l s
21 b r 22 a k e s d
23 h a n d s d 24 a
r t 25 a l e r t
26 s l o w 27 u s e e

ROAD SIGNS

LET'S FIND THE HIDDEN

SIGN WORDS!

R	P	S	I	G	N	A	L
C	A	T	T	L	E	T	E
S	R	I	E	C	U	O	K
T	K	C	L	U	O	N	I
O	I	M	E	R	G	E	B
P	N	J	P	V	O	W	R
A	G	T	H	E	W	A	I
D	E	T	O	U	R	Y	D
W	R	T	N	E	F	T	G
K	Y	I	E	L	D	S	E

WORD LIST

CURVE

WET

DETOUR

SIGNAL

BIKE

RAILROAD

ONEWAY

YIELD

CATTLE

LEFT

STOP

BRIDGE

MERGE

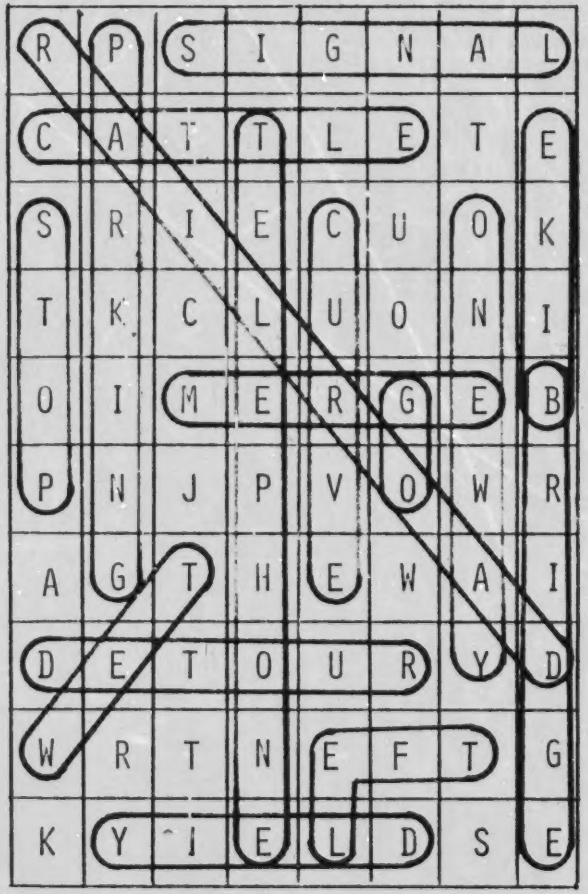
TELEPHONE

PARKING

GO

ROAD SIGNS

KEY



ARE YOU RIDING?

tune of: "BROTHER JOHN"

1.

ARE YOU LEARNING?
ARE YOU LEARNING?
HOW TO RIDE,
AND SURVIVE?
PRACTICING IS WISE,
ON A BIKE YOUR SIZE,
FAR FROM CARS,
FAR FROM CARS.

2.

ARE YOU CHECKING?
ARE YOU CHECKING?
FOR THINGS WRONG,
ALL DAY LONG?
MOVING PARTS ARE HANDY,
IF THEY'RE NOT SANDY,
ON YOUR BIKE,
ON YOUR BIKE.

3.

ARE YOU RIDING?
ARE YOU RIDING?
CAREFULLY?
THAT'S THE KEY.
WATCHING ALL THE SIGNS,
KEEPING RIGHT OF LINES,
ON YOUR BIKE,
ON YOUR BIKE.

4.

ARE YOU PARKING?
ARE YOU PARKING?
WHERE YOU OUGHT?
AS YOU'RE TAUGHT.
PARK YOUR BIKE IN RACKS,
NEVER PILE IN STACKS,
AT THE SIDE,
AT THE SIDE.

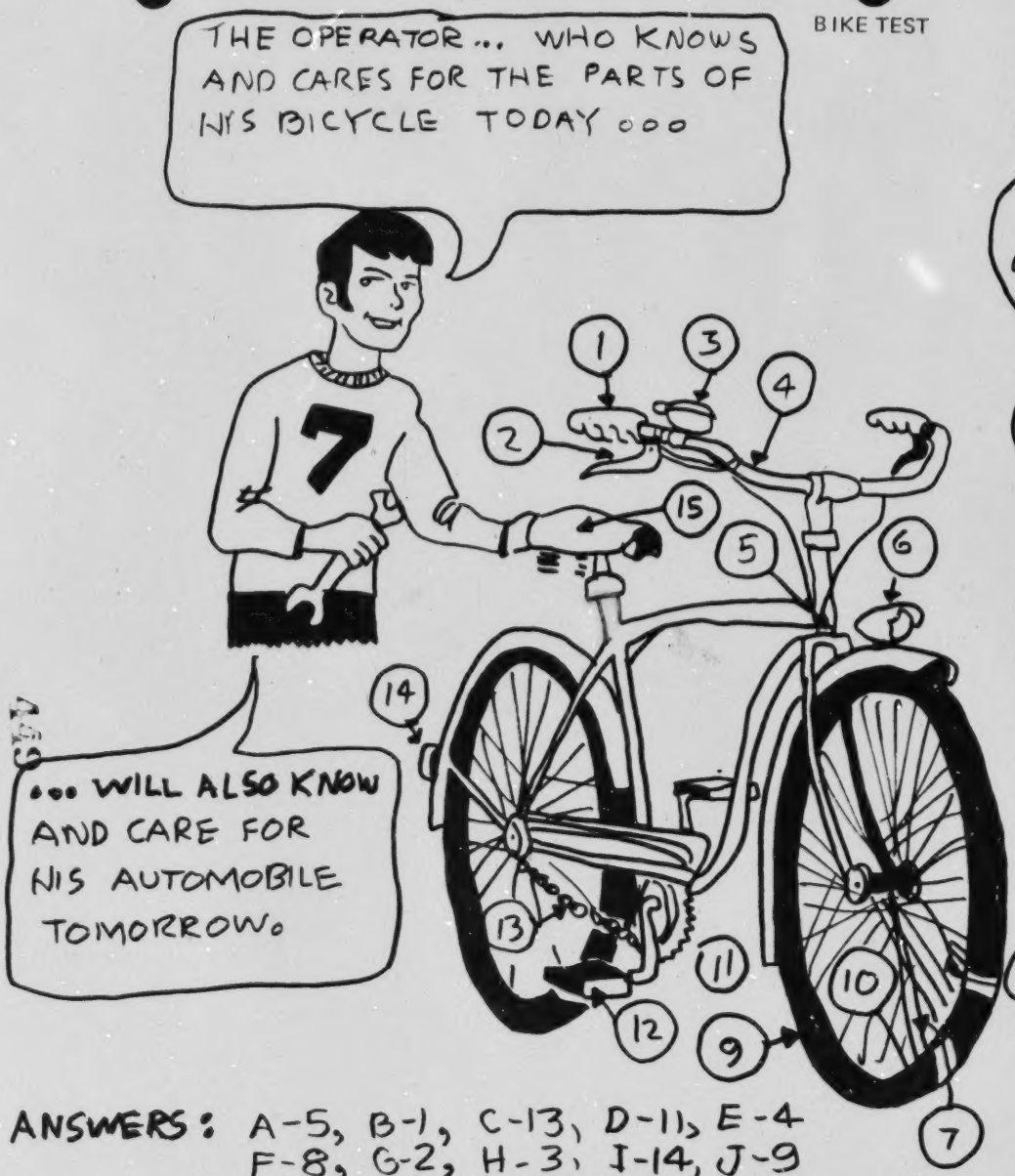
5.

IS IT RUGGED?
IS IT RUGGED?
WHERE YOU GO . . .
SLEET OR SNOW?
GRAVEL ROADS ARE TROUBLE,
ICY ONES ARE DOUBLE,
STAY AT HOME,
STAY AT HOME.

6.

WHEN YOU'RE DRIVING,
WHEN YOU'RE DRIVING,
USE YOUR MIND –
YOU WILL FIND –
BIKES ARE VERY NICE,
IF YOU TAKE ADVICE,
AND TAKE CARE
EVERYWHERE!

BIKE TEST



PUT THE CORRECT NUMBER IN THE BOX WHICH DESCRIBES THE NUMBERED PART.

A FORK BEARINGS
Lubricate adjust

F TIRE VALVE
Inspect for leaks

K SPOKES
Replace broken ones

B HANDLE GRIPS
Replace if worn cement tightly

G COASTER BRAKES
Lubricate and adjust

L PEDALS
Lubricate and tighten

C CHAIN
clean and lubricate

N WARNING DEVICE
Must be heard 100 ft. away

M WHEELS
Keep nuts tight and bearings oiled

D CRANK HANGAR
Keep clean greased and tight

I REFLECTOR
Must be visible at 300 ft.

N LIGHT
Must be visible at 500 ft.

8

E HANDLE BARS
Adjust and tighten Set for proper height

J TIRES
Inflate to correct pressure

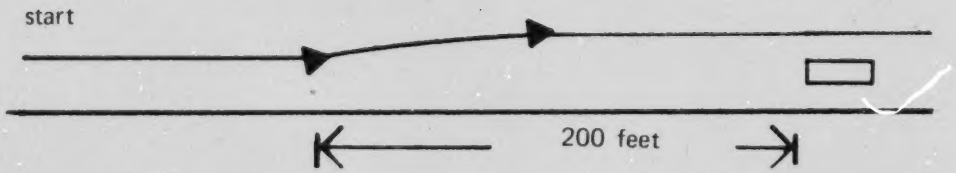
O SADDLE
Adjust to proper height Tighten all nuts.

ANSWERS: A-5, B-1, C-13, D-11, E-4
F-8, G-2, H-3, I-14, J-9
K-7, L-12, M-10, N-6, O-15

Simulate a traffic situation as described below. Have the student participate and self assess his procedure and skill.

Layout:
Straight stretch of street or highway (a mock 'highway' may be laid out on the playground) at least 200 feet long with a simulated parked car (large box, bicycles, etc.) as obstacles at one end of highway on the same side the rider will be on.

Description:
Cyclist rides along highway at average speed. As he approaches the obstacle, he observes traffic behind him, makes the proper signal and passes the obstacle when it is safe. (Other bicycle operators can be used to represent passing automobiles.)

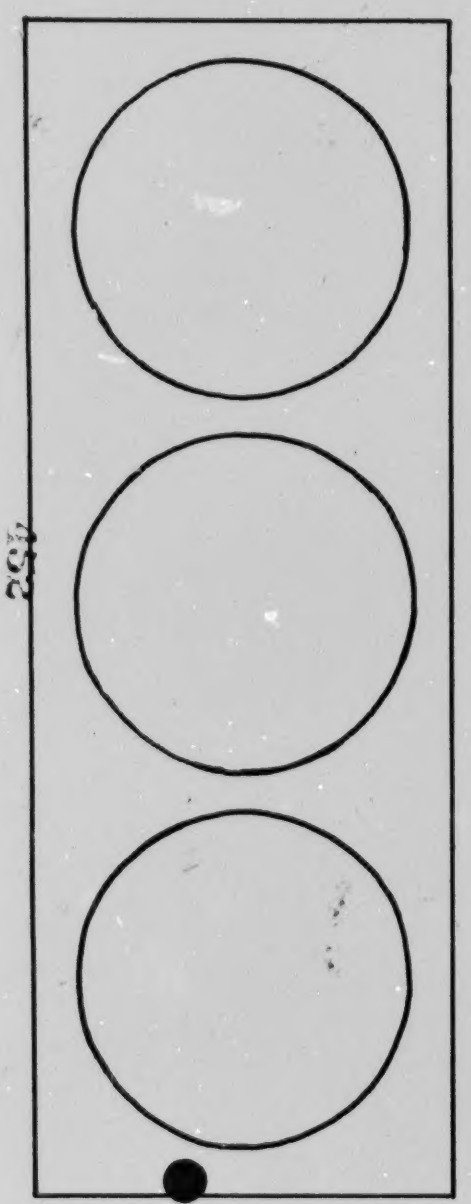


Points:
1. Operator oberves traffic behind him. (4 points)
2. Signals the intention to turn out. (4 points)
3. Passes obstacle in safe manner. (2 points)
4. Rides at least five feet from side of obstacle. (3 points)
5. Pulls back to proper postion on side of road. (2 points)

Sign coloring – WHITE: bicycle interior, border line, arrow, letters **BIKE ROUTE**
GREEN: background of bicycle, background or arrow

REINFORCEMENT ACTIVITY

MODEL TRAFFIC LIGHT



Cut three large holes in the side of a half-gallon milk carton. Cover the top hole with *red* cellophane or tissue. Cover the middle hole with *yellow*, and the bottom hole with *green*. Cut a hole in the opposite side of the carton so the cellophane circles can be illurminated from behind with a flashlight. Insert a cardboard mailing tube in the base for a stand. Children can take turns operating the traffic light with a flashlight.

DICK DOLPHIN:

HE IS VERY BRIGHT.

WHEN THE LIGHT TURNS RED -
STOP! HE USES HIS HEAD.

WHEN THE LIGHT TURNS YELLOW -
WAIT! BE A CAREFUL FELLOW.

GREEN LIGHT - LOOK LEFT AND RIGHT
AND BE SURE IT'S CLEAR,
BEFORE YOU CAN CROSS WITHOUT ANY
FEAR.

Ten Little Bikes
(tune: *Ten Little Indians*)
10 little bikes all in a line;
1 fell over—then there were 9.
9 little bikes all in a line;
1 was stolen—then there were 8.
8 little bikes all in a line;
1 got hit—then there were 7.
7 little bikes all in a line;
1 lost a wheel—then there were 6.
6 little bikes all in a line;
1 hit a tree—then there were 5.
5 little bikes all in a line;
1 went through a stop sign—then there were 4.
4 little bikes all in a line;
1 rode double—then there were 3.
3 little bikes all in a line;
1 didn't signal—then there were 2.
2 little bikes all in a line;
I hooked a ride—then there was 1.
1 little bike all well;
Following the safety rules—he'll stay that way.

Poem
When riding a bike,
Look out for those who hike.
Make sure you use your noggin.
Don't be dobbin
Keep moving along, and obey
all bicycle rules,
For you wouldn't want the doctor to
use his tools.
Don't fall down and bump your nose,
Just because you were pedaling
barefoot with your toes.
Always be careful.
Don't be dareful.
Don't ride double with your friend,
Or it may very well be your end.

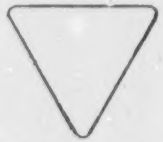
Crossing a busy street
Is not a treat.
You have to look left and right
Until there's not a car in sight.

Know your bicycle rules,
Don't be fools.
Remember them all
And you won't have to make
a doctor's call.

Poem
When Dick Dolphin rides his bright red bike,
He watches for the traffic light.
He stops with red, and goes with green,
For the rushing cars are very mean.
The cars are big; Dick's bike is small.
Dick knows the safety rules—one and all.
Dick wishes you would know them too;
And use them on your way to school.
But not just on your way to school,
ALWAYS use Dick's safety rules.

by *Kara*

Read Aloud Safety Story
One day, Dick Dolphin and his friends went for a ride on their bikes. They looked at the signs by the road. They saw a white sign with a red band like this one.



"What shall we do?" asked Jack. "We must slow down," said Dick. "Then we will look around carefully. If there isn't any car coming we will go on." "Why do we have to slow down?" asked Tom. "So that we will be safe bike riders," said Dick. "The people on that other road have the right-of-way." "What does that mean?" asked Jack. "It means that they do not have to stop for us." said Tom. "Isn't that right, Dick?" "Yes," said Dick. "Now here is another sign. What does it say?"

"I know that one," said Jack. "That means stop." "Why is it red?" asked Tim. "I know." said Bob. "Red means danger. The red sign with the white letters is easy to see, too." "You are right." said Dick Dolphin. "It is time to go home. We will find more safety signs when we go riding tomarrow. Always remember, *Safety First*!"

Fair–Mont–Egan School

WHICH IS THE SAFE PATH ?

START AT THE BOTTOM OF THE PAGE, CHOOSE YOUR PATH CAREFULLY.

'FESTIVAL OF BIKES'

School–Community Activity

A group activity, in which all students participate and the parents are involved, reinforces a student, instructor and community effort. The following is a sample of such an activity to assist you in planning. For each community the conditions, equipment and need will vary and the school should plan according to these considerations.

Leadership
Leadership is the key to success. Community involvement, a strong point in this activity, requires firm but not dictatorial leadership. Planning by the leader will assure the essential consideration of safety for the participants and observers.

Objective
1. Create attitudes which will allow students safe and enjoyable bicycle operation experience.
2. Provide an activity which creates parental awareness of bicycling and what is being taught in the school.
3. Create, by parent and community, awareness of bicycle safety.
4. Provide experiences for problem solving in simulated situations.
5. Prepare skill competencies in bicycle operation in the traffic environment such as balance, control and emergency movement.

Planning
Activities should be divided by age groups, for example, ages 6, 7, and 8 might participate as a group. A caution to the planner; avoid timed activities as opposed to skilled activities. An activity designed to improve skills of students, and being non competative, encourages young people participating to learn and not to show off.

Parents and news media should be informed well in advance of the activities. Perhaps transportaiton on a school bus could be provided. This will also help parents to understand school problems in transportation.

Most students and parents are willing participants in well planned activity spanning about 2½ to 3 hours. A program should be printed and include objectives and appropriate acknowledgements.

Planners should involve community agencies such as law enforcement, service clubs, high school students, bicycle groups, bicycle dealers, senior citizens, et al.

Sample Program:
1:00 P.M. . . . Film Showing
1:30 P.M.M. . . . Bike Inspection
2:15 P.M. . . . Bike Skills Activities
3:00 P.M. . . . Awards
3:15 P.M. . . . Bike Parade

Film – Appropriate film for parents and students chosen by age level. Previewing the film is essential. Suggested films: "Just Like A Car" or "Tripping On Two." Montana Audiovisual Library, Office of the Superintendent of Public Instruction, Helena, MT 5960l.

Inspection – An inspection form, a sample of which appears on the following pages, can be obtained from the Montana Highway Patrol Bureau, Helena, MT 59601.

Activities – An outline of activities appears on appendix R. Scoring of the skills must conform to your program objectives. A suggestion is that each of the five parts have a value of 20 points. Points are deducted for errors. Use any or all activities adopting each activity to age group and area.

Awards – Every participant should leave the activity with some recognition that they have participated. Additional prizes or awards for skills could include safety items for bikes such as bike flags, reflectors, bike horn or a T-shirt (see page 7). In some communities service organizations or businesses will contribute such items. A sample award is provided on the last page.

Parade – The first consideration of parade organization is safety. Plan the route and determine how dispersion of participants will take place, keeping in mind community traffic patterns.

Helpful Aids – General outlines of skill activities and helps to a leader planning a group skill activity:

American Automobile Association
1712 G. Street, N.W.
Washington, D.C. 20006
Request single copies of activity material.

Bike Reflector Kits, products and price list available on request
Safety Factors, Inc.
6746 West North Avenue
Chicago, IL 60635

Bike safety items, price list available on request:
American Industries, Inc.
Sarasota, FL 33580

Activities and information of general use, "Expert Bike Driver":
Channing L. Bete Co., Inc.
45 Federal Street
Greenfield, MA 01301
Student booklet price 25 cents each.

Cones, bike triangles, line markers, etc.:
Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, MO 63701
Request catalog.

Reflective tape emblems with Dick Dolphin, request prices and information:
Traffic Control Products, 3M Company
James A. Delaney
109 Riverview 1 West
Great Falls, MT 59401
Request additional information on Bike Safety Kits.

(SAMPLE)

SCORE SHEET

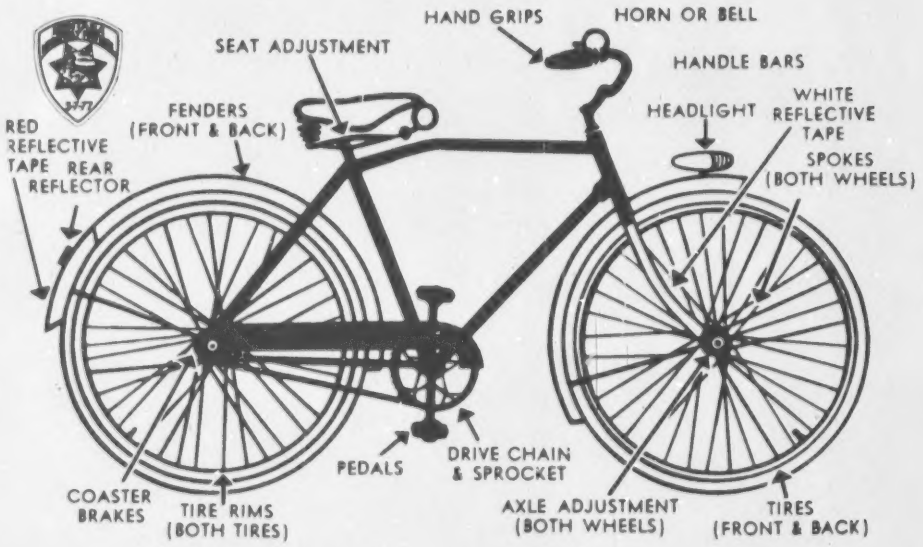
Name _____

ACTIVITY	SCORE	IMPROVEMENT IN
1. Figure Eight		
2. Straight Line		
3. Weaving		
4. Intersection		
5. Evasive		
6. Stopping		
Total		

Score Keeper _____

(SAMPLE)

INSPECTION FORM



Available from:
Montana Highway Patrol Bureau
Helena, MT 59601

BICYCLE SAFETY INSPECTION: The club instructor is to inspect each bike or he may accept a card signed by an authorized bicycle dealer as proof of safe condition.

Name of Bicycle Owner.....

Inspection Made by.....

	Pass	Adjusted	Repairs Needed
HANDLE BARS—Right height, tight. Handlegrips must be tight.			
BRAKES MUST HOLD.			
SADDLE—Should be adjusted so that leg forms straight line when rider sits with heel on pedal at lowest point.			
PEDALS—Should have good treads, lubricated to turn freely.			
WHEELS—Wobble indicates need of wheel cone adjustment or replacement of broken spokes.			
REFLECTOR—Required as essential safety item.			

HEADLIGHT: The club does not insist on a headlight, but the child must understand that it is required by law if riding after dark.

PARENTS: For safe, easy riding keep bikes in good repair.
Your authorized bicycle dealer will make this inspection.

(SAMPLE)

Bicycle Skill Activities

Area: Boundries may be determined by using cones, block or lines. The perimeter of the area should be free of hazards and boundry items safe if hit by the participants. Area available and ability of participants will dictate distances.

1. *Figure Eight* – Purpose: balance and change of direction. When operating a bicycle there are frequent instances when the operator must swerve to avoid a pedestrian, a pothole, or an oncoming vehicle.

2. *Straight Line* – Purpose: start and stop without weaving. With a bicycle of proper size a participant can start and stop without weaving. The proper bike pedal position should be checked.

3. *Weaving* – Purpose: change of direction and maneuver. A bike operator becomes aware that he should not look at an obstacle because he steers in the direction he is looking.

4. *Intersection* – Purpose: hand signal check. Correct hand signals used without losing control of the bicycle.

5. *Evasive* – Purpose: evasive maneuver and change of direction in a confined area. A car door opening in the path of a bike operator requires swerving around the obstacle and avoiding oncoming traffic in a confined area.

6. *Stopping* – Purpose: stopping ability and stopping distance. Operators of bicycles are often unaware of stopping distance. Balance is important in stopping.

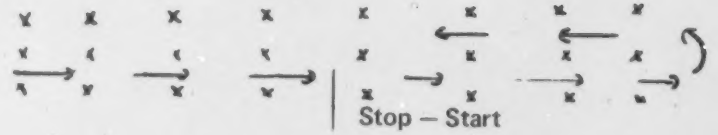
(SAMPLE)

Course Outline

'x' indicates cones or markings which show the course. Adjust distance to the area and group. Mark lanes 4 feet wide.

1.

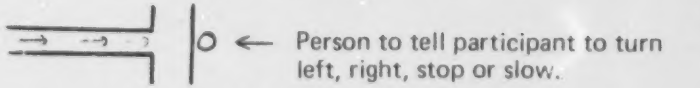
2.



3.

Cones 8' to 10' apart

4.



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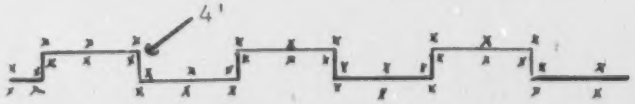

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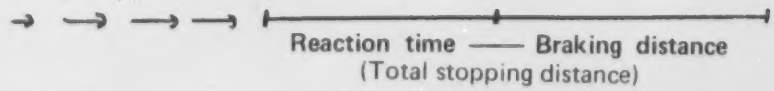


SAMPLE
AWARD

BICYCLE SAFETY AWARD

TO _____

For participating in **BICYCLE SAFETY INSTRUCTION.**

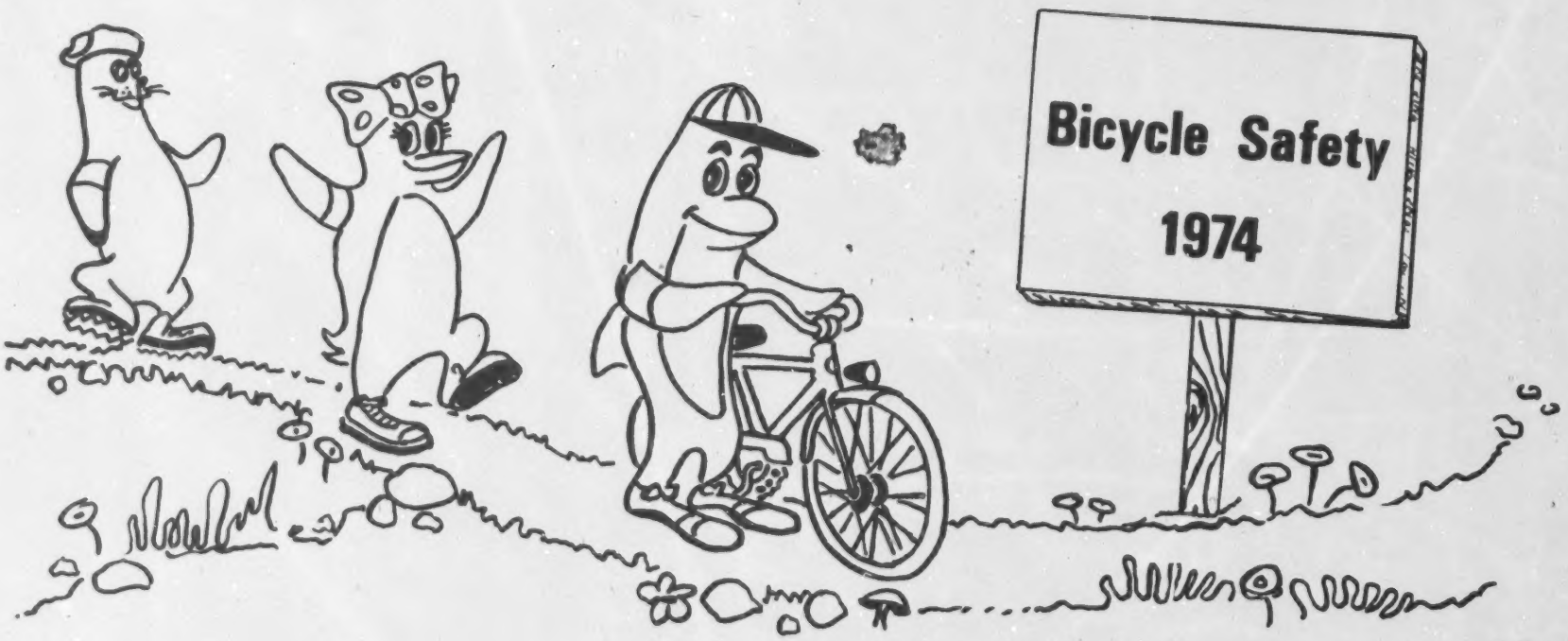
Dated _____

_____ _____

School Superintendent or Principal *Instructor*

Traffic Education for Montana Elementary Schools

6



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DOLORES COLBURG, SUPERINTENDENT OF PUBLIC INSTRUCTION, HELENA, MONTANA 59601

Financed through a grant under the Highway Safety Act of 1966, P.L. 89-564

STATE PUBLISHING CO.–LITHO

PREFACE

This curriculum guide has been developed to assist teachers in an instructional program for elementary school youngsters in traffic education. The guide provides instructional aids and resource materials that are designed to fit smoothly into many areas of existing elementary curricula.

The basic materials in this guide were developed by participants in a July, 1973 workshop sponsored by my office and supported with a grant under the Highway Safety Act of 1966. The participants, who functioned as a task force team, are

Larry Becker
Barbara Bowlen
Don Burman
Marge Carlson
Joel Cobetto
Robert Eva
Gary Ford
Earl Furlong
Dorothea Grow
James Gunlikson
Lowell Hayes
Patricia Heydon
David Jones
Margaret Kavulla
Robert LeMieux
Thomas Loggins
Dan Magstadt
Lynn Mavencamp
Dan McKenty
Mildred McMillion
Harold G. Mogen
Raine Montysals
Roland Newton
Boyd O'Connell
Ed Reichert
Michael Rosbarsky
Minnie Skinner
David Stabio
Jack Sutton
Tally Taylor
William Taylor
R. Keith Thomas
Andrew Veis
Richard West
Jack Witham

Curtis R. Hahn, Traffic Education Supervisor, and Georgia D. Rice, Assistant Traffic Education Supervisor in my office, directed the entire effort in producing this guide. Consultative assistance, particularly for the July, 1973 workshop, was provided by Richard Boyer of Glenview, Illinois. Jerome Rankin did the artwork for the guide.

While this guide was pilot-tested in twelve elementary schools in the state prior to final publication and distribution, we would welcome responses from all who receive the guide as to its usefulness as an instructional and learning tool. Critical review of and comment on this guide can be of assistance to us in future efforts of this office.

DOLORES COLBURG
Superintendent of Public Instruction

GRADE LEVEL: SIX

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APPLIED INSTRUCTION AREA

To assist the instructor to integrate safety activities into instructional areas, subjects are listed and appropriate pages given below.

Subject Area	*Page Number of Related Traffic Safety Activities*
ART	Appendix L
HEALTH	26, 36
LANGUAGE ARTS	19, 21, 24, 32, 43, Appendix A, C, F, M
PHYSICAL EDUCATION	Appendix J, K, O–S
MATHEMATICS	19, 24, 32
MUSIC	Appendix H, M
SCIENCE	32, 36, 40, 43
SOCIAL STUDIES (Careers)	21, 26, 40, 45

INTRODUCTION

As most of you know, traffic accidents represent one of the greatest threats to human preservation. Individuals are involved in a highly complex traffic environment from birth and remain involved throughout their lifetime as a passenger, pedestrian, bicyclist and motor vehicle operator. Consequently we owe it to our students to provide them the opportunity to learn the knowledges, skills, and attitudes that will allow them to function successfully within the traffic environment.

The education of a student is brought about by effective management of the total learning environment. After perusing the enclosed curricular guidelines, we believe you will discover that management by objective can be successfully applied and because the program is "performance based," learner achievement is promoted.

If we accept human preservation as an appropriate educational goal to manage as a part of the total learning environment, we must help the student develop his dicision making ability. The decision making process should begin early in the development of the student. The performances required in this program are built around decision making and problem solving. To be more specific, the concepts of IDENTIFY, PREDICT, DECIDE and ACT must be encouraged and taught throughout the utilization of this material.

The student must learn to IDENTIFY the problem or situation; PREDICT what might happen; DECIDE what course of action he must take to successfully deal with the situation; and ACT effectively. The IPDA concept has application on a much broader basis than just the traffic environment.

Human preservation cannot be achieved without the help, commitment and involvement of the following:

PARENTS

Nobody quarrels with the axiom that education begins in the home. Utilizing the home as the nearest "grass roots" of a child's learning environment is essential. The more sterile and removed the environment of the classroom, the more doomed to failure learning becomes. Ways to gain the curiosity, healthy interest, and helpful assistance of the parents are integrated in this program. The imagination of the instructor is unlimited when involvement is used to further develop the methods or create new methods.

STUDENTS

This program is based on the principle that students are aware of what tasks are expected of them, that they know what they can expect of their teachers, and that through their efforts, they can achieve success. Students are the gatherers and discoverers of information, not the receivers. Students develop psychomotor skills through practice, not as trainees. Students must become involved in the total task.

SCHOOL

When instructors, the administration, and school board agree on established goals, the compartmentalized school solidifies into a total unit dedicated to teaching the total student. A student who becomes a statistic in accident reports is denied his birthright to an education. Accident reduction in the traffic environment is an easily agreed upon goal.

COMMUNITY

No matter how small or isolated the community, various service, social, religious, and fraternal organizations and agencies are dedicated to the same goal as education. Some of these organizations and agencies have a wealth of experience, materials, and maybe most importantly, time which can be utilized and channeled for the benefit of kids. The prepared, interested and effective teacher makes full use of the community.

STATE

The Office of the Superintendent of Public Instruction Traffic Education Program is especially receptive to your suggestions to improve, polish, and perfect the instructional content of this program. Any evaluation, innovation, successful methodology from you, the instructor, would be helpful. Other agencies are also committed to the education of youth. Some are mentioned in this program.

FEDERAL

The many projects initiated by the federal government, which focus on the youth, should be evidence of a commitment to be of assistance. Often, what seems to be apathy is ignorance of your needs.

LAW ENFORCEMENT AGENCIES

From the highway patrolman to the town marshal to the sheriff – all have a vital concern that a student will be educated with a respect for and understanding of the laws which govern a society. Probably from no other source will the instructor find more cooperative and helpful people. Too often these people have seen the results of ignorance and carelessness in a traffic environment. They have a personal and professional commitment to the same goals as the instructor and this program.

SUMMARY

Students would never learn a new concept if it were not a more advanced endeavor than his previous level of knowledge. The program is created on a "building block" concept and though some concepts are difficult at the grade level assigned, the instructor should be cognizant that the student beginning at K with the kindergarten material will be ready for grade one material. Also it is not a challenge to the learner to repeat a concept which he has already discovered. Challenge your student or you will have discipline problems, frustration, and dull classes.

INVOLVEMENT

CREATES

COMMITMENT .

COMMITMENT

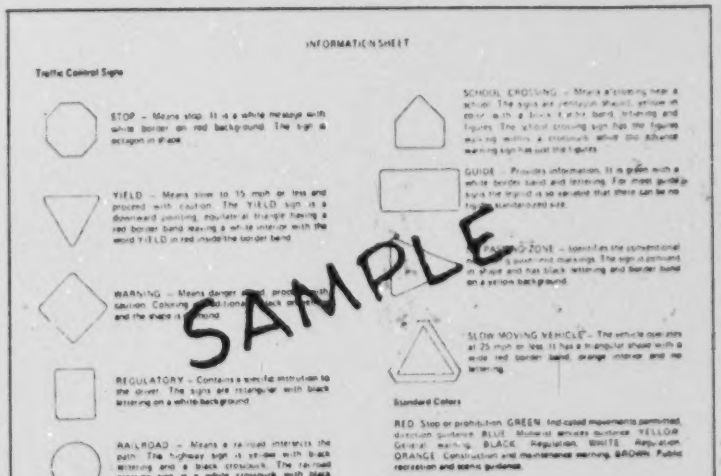
CREATES

SUCCESS.

DESCRIPTION OF FORMAT

The description of format found below is intended to provide the teacher with an overview of the various instructional materials used throughout this curriculum guide. These instructional materials have been color-coded for easier identification and implementation of activities. All teaching materials are printed on yellow paper. All appedices are printed on white paper. This curriculum is composed of the following instructional materials: 1. Information Sneets; 2. Format Sheets; 3. Individualized Learning Guide Sheets; 4. Transparency Original Sheets; 5. Reinforcement Activity Sheets; and 6. Appendices.

1. INFORMATION SHEETS: *Information Sheets* are printed on yellow paper and precede all other instructional materials. There are nine short sections to provide the instructor with needed information about bicycles. The *Information Sheets* help to prepare the instructor so that he will have the knowledge to teach and answer questions about bicycles. Before beginning instruction it is recommended that the instructor read all of the *Information Sheets.*


INFORMATION SHEET

Traffic Control Signs

STOP – Means stop. It is a white message with white border on red background. The sign is octagon in shape.

YIELD – Means slow to 15 mph or less and proceed with caution. The YIELD sign is a downward pointing, equilateral triangle having a red border band leaving a white interior with the word YIELD in red inside the border band.

WARNING – Means danger [illegible] caution. Coloring [illegible] and the shape is [illegible]

REGULATORY – Contains a specific instruction to the driver. The signs are rectangular with black lettering on a white background.

RAILROAD – Means a railroad intersects the path. The highway sign is yellow with black lettering and a black crossbuck. The railroad crossing sign is a white crossbuck with black lettering.

SCHOOL CROSSING – Means a crossing near a school. The signs are pentagon shaped, yellow in color with a black border band, lettering and figures. The school crossing sign has the figures walking within a crossbuck, while the advance warning sign has just the figures.

GUIDE – Provides information. It is green with a white border band and lettering. For most guide signs the legend is so variable that there can be no [illegible] standardized size.

[illegible] ZONE – Identifies the conventional [illegible] movement markings. The sign is pentagon in shape and has black lettering and border band on a yellow background.

SLOW MOVING VEHICLE – The vehicle operates at 25 mph or less. It has a triangular shape with a wide red border band, orange interior and no lettering.

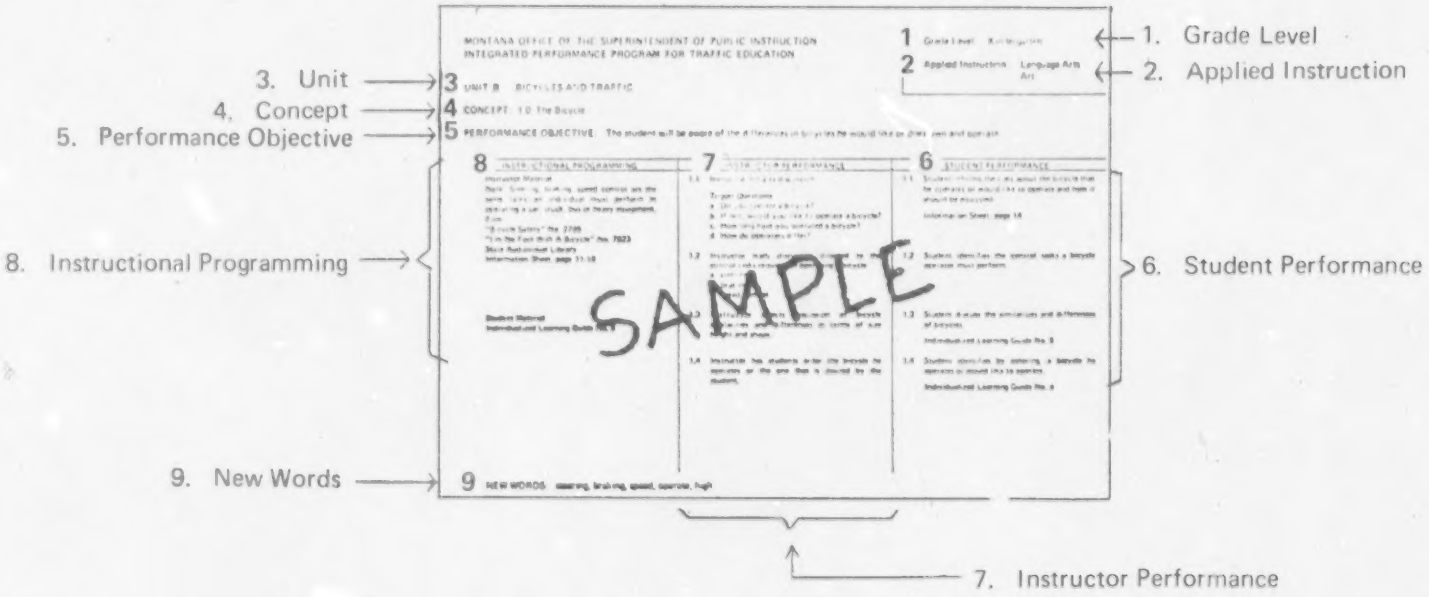
Standard Colors

RED: Stop or prohibition. GREEN: Indicated movements permitted, direction guidance. BLUE: Motorist services guidance. YELLOW: General warning. BLACK: Regulation. WHITE: Regulation. ORANGE: Construction and maintenance warning. BROWN: Public recreation and scenic guidance.

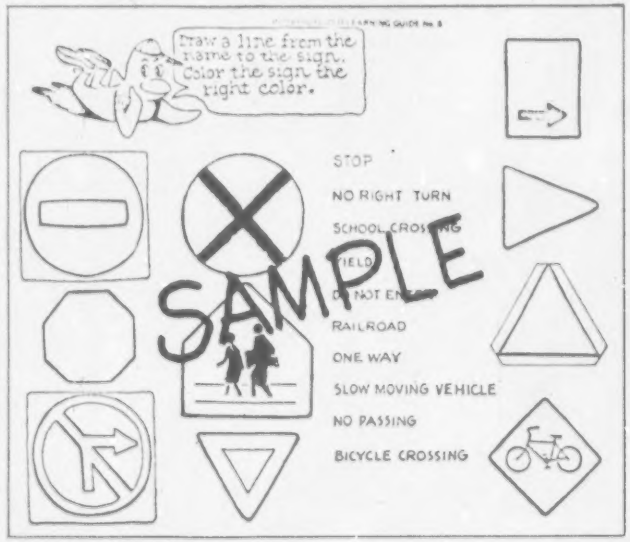
SAMPLE

2. FORMAT SHEETS: *Format Sheets* are printed on yellow paper and provide the instructor with the following information: (1) Grade Level – indicates grade level for which this material is best suited; (2) Applied Instruction – indicates the subject matter in your existing curriculum that most closely applies to the specific concept being taught; (3) Unit – indicates the major topic being covered; (4) Concept – indicates a single idea to be taught; (5) Performance Objective – indicates what it is the student should know, feel, or be able to do at the completion of the instruction; (6) Student Performance Column – identifies what activity the student will be doing in order to learn the *Performance Objective*. Each student activity has a number. the first digit of that number corresponds with the *Concept* number. The second digit indicates which activity it is. This column also indicates which *Individualized Learning Guide Sheets* and *Transparency Original Sheets* are used with a particular student activity; (7) Instructor Performance Column – identifies what it is that the instructor will be doing to assist the student in achieving the *Performance Objective*. The number assigned to a specific instructor performance activity will correspond to an appropriate student performance activity; (8) Instructional Programming Column – lists the various instructional materials that a teacher can use to assist the student in learning the particular objective; (9) New Words – identifies the new safety words that are used with a particular *Concept*. This list is intended to enable the teacher to explain the words or substitute the words for something more appropriate. The new words list is not intended to be a spelling list.

1977

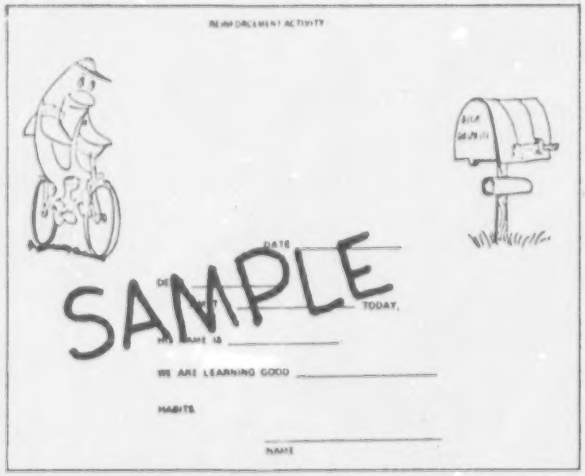


3. INDIVIDUALIZED LEARNING GUIDE SHEETS: *individualized Learning Guide Sheets* are for use by students. They have been developed specifically to help the student do a particular activity which will allow him to achieve a specified performance objective. *Individualized Learning Guide Sheets* follow the *Format Sheet* that listed it for use as an instructional aid and can be duplicated in quantity.



4. TRANSPARENCY ORIGINAL SHEETS: *Transparency Original Sheets* are designed for reproduction into a transparency that could be used on an overhead projector.

5. REINFORCEMENT ACTIVITY SHEETS: *Reinforcement Activity Sheets* are used to explain ways in which the teacher can enrich or reinforce a learning concept.



6. APPENDICES: *Appendices* can be found at the back of the booklet and are printed on white paper and lettered. The items found in the appendices are an array of instructional materials that could be utilized by the instructor to enhance the learning process.

Armed with this brief description of the format, we hope you will find that you can more easily use these instructional materials. Best wishes to you in your efforts to promote human preservation.

INSTRUCTOR INFORMATION

Objectives
The overall objective of this integrated approach to traffic safety is to provide a tool for instruction of students in the knowledge and skill needed to cope with the traffic environment. This program maintains a positive approach to safety and presents a "way of life," not restrictive rules in a negative approach.

Integrated
Material has been provided to integrate not add to the already existing elementary program. Although multiple activities are provided a selective approach to relevant needs of your student is encouraged.

Time
A time span is not provided because of variation and need of flexibility for the instructor. Note that format sheets do not dictate time span. The integrated approach cannot be truly utilized if a time span is dictated.

Symbols
Symbols have proven to be effective in our society (i.e., by Smokey The Bear and Woodsey Owl). You are encouraged to use the symbols (Dick Dolphin, Bicyclist; Patty Penguin, Passenger; Seemore Seal, Pedestrian) as a means of communication. The choice of symbols was made because these three animal characters are not likely to appear in an adverse situation, such as dead. Expansion is allowable to other areas of safety endeavor such as water safety. Stylization of the characters in simple lines allows a teacher and student to draw the symbols easily. The symbols are creatures which a student is not taught to stay away from and fear. We hope you will enjoy the menagerie.

Commercial Material
Commercial materials are not emphasised since most items span several grade levels. Below are listed some sources which may be helpful aids.

T–shirts can be ordered in the school's colors with one of the three characters, Dick Dolphin, Patty Penguin, Seemore Seal. Character can be printed on the front or back of shirt. The cost for a minimum of 12 is $27.00 and any over 12 is $2.25 each. Order "Traffic Characters" at The Emporium, address:

Wild West Marketing
2 West Main
Bozeman, MT 59715

State size, color and number requested.

Verses and coloring, levels K–2, request free booklets:

"Children's Safety Lessons"
Kemper Insurance
Long Grove, IL 60049

Large pages for coloring about Montana safety, levels K–2, request "Coloring Book":

Montana Highway Patrol Bureau
1014 National Avenue
Helena, MT 59601

Folder "The ABC's of Bike Riding," levels 1–2. For additional folder subjects write:

Imagination, Inc.
1821 University Avenue
St. Paul, MN 55104

Also "10 Little Bike Riders," small folder of verses.

INFORMATION SHEET

Stories and activities in "Traffic Safety Guide For Teachers," inquire at local AAA office or write:

American Automobile Association
Traffic Engineering and Safety Department
1712 G. Street N.W.
Washington, D.C. 20006

Suitable for levels 1–3.

"The Bike Book" has hints to rider and bikes available, levels 2–5, write and refer to stock No.399.91:

National Safety Council
425 North Michigan Avenue
Chicago, IL 60611

Hints and check list for proper care of bike and rules for more advanced bike drivers, levels 3–5, request "Hi! Bike Pilots!":

Safety Department
Allstate Insurance Companies
Allstate Plaza
Northbrook, IL 60062

Booklet presents compact lesson for bike behavior in cartoon fashion. Write for "Be An Expert Bike Driver," levels 4–6.

Channing L. Bete Co., Inc.
Greefield, MA 01301

Pamphlet to win the State Farm Safe Bicycling Award, levels 4–6, request at local State Farm Insurance Companies or write:

State Farm Insurance Companies
Bloomington, IL 61701

"Five Keys To Safe Bicycling" from the film "The Bicycle Driver" covers five areas to consider for being good drivers. Levels 5–6, request from:

Safeco Insurance Companies
Safeco Plaza
Seattle, WA 98185

Hints to teacher about activities, explains the why for some of the rules, suggestions for involvement, levels 4–6, inquire at local AAA office or write:

American Automobile Association
Safety Department
1712 G. Street N.W.
Washington, D.C. 20006

Request Traffic Safety Guide for Teachers.

General Map Reading Rules and the "how to" of reading maps. Levels 5–6, request Map Reading and Trip Planning Course, product No. 813, Packet of 35, shipping weight 3 lbs., cost $7.95.

Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, MO 63701

A message to Bike Riders and a safety check list, level 6:

The Texas Safety Association
1623 South Lamar Blvd.
Austin, TX 78704

For Level 6, a Bicycle Safety Information Test and Answer Sheet to be used as an aid to learning, request from:

School and College Department
National Safety Council
425 North Michigan Avenue
Chicago, IL 60611

Highlights for assisting you in the care and operation of your 10 or 5 speed bicycle. Level 6, request Schwinn Care and Operation Check List:

Schwinn Bicycle Co.
1856 North Kostner Avenue
Chicago, IL 60639

INFORMATION SHEET

General information for all levels available from:

Scott, Foresmen and Company
855 California Avenue
Palo Alto, CA 94394 (large poster with traffic signs and problem solving method);

Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, Mo 63701
(catalog for traffic education);

Kemper Insurance
Long Grove, IL 60049
(booklets);

Texas Safety Association
1623 South Lamar Blvd.
Austin, TX 78704
(general information);

Bicycle Institute of America
122 East 42nd Street
New York, N.Y. 10017
(statistics and information)

Insurance Institute for Highway Safety
1725 DeSales Street, N.W.
Washington, D.C. 20036
(general information).

Ideas

Additional popular ideas, gleaned from pilot schools, include making booklets with the Individualized Learning Guides, displaying posters in the school and in the community, and having upper grade students teach concepts to lower grade levels. Ideas contributed by teachers are incorporated in appropriate sections.

Film Library

Request all film through the Montana Audiovisual Library, Office of the Superintendent of Public Instruction, Helena, MT 59601, by title and number. Read film description and date film developed to assure current and relevant information is used.

Reinforcement Activities

Reinforcement activities to enrich and reinforce concepts are included for your selective use.

Problem Solving Method

A systematic process of identifing, predicting, deciding and acting, when confronted with a potentially dangerous situation, is essential to a student. A student must first identify the hazard, predict what will occur if certain actions are taken or not taken and then by calling on stored memory of past experience or knowledge, correctly decide on an appropriate action. Finally, he must act or react to successfully manage the encounter. These situation occur as a student crosses intersections, rides in the family car or on the school bus. They occur in the school and home environment, on the playground, and when riding bicycles or motor equipment.

Although information is received through all of the senses the greatest percent is preceived through vision. It is therefore essential to teach perception.

Visual perception is identifing, "mental decoding" of the information is predicting and deciding, then appropriate action can be taken.

In the early grade levels predicting is a difficult concept but not impossible. For some students identify, decide and act will provide a short version of the process.

Survival in many situations can depend on a problem solving method and it is the responsibility of the instructor to provide methods to the students. IPDA is a viable method in traffic education as well as in simple decisions.

Helpful aid: "Problem Solving In Everyday Safety"
A 92 transparency program in nine teaching units on Safety Education. Teaches safety consciousness as a frame of mind and mode of behavior. Most important the student is the one who arrives at the solution because he solves the problem himself. Distributed by:

Bumpa-Tel, Inc.,
P.O. Box 611
Cape Girardeau, MO 63701
Cost: $99.95 for complete set.

Montana Motor Vehicle Code "Rules of the Road" that affect bicyclists as of July 1, 1974 are listed below.

32–2184. EFFECT OF REGULATIONS. (a) It is a misdemeanor for any person to do any act forbidden or fail to perform any act required in this article (32–2184 to 32–2190).

(b) These regulations applicable to bicycles shall apply whenever a bicycle is operated upon any highway or upon any path set aside for the exclusive use of bicycles subject to those exceptions stated herein.

32–2185. TRAFFIC LAWS APPLY TO PERSONS RIDING BICYCLES. Every person riding a bicycle upon a roadway shall be granted all of the rights and shall be subject to all of the duties applicable to the driver of a vehicle by this act, except as to special regulations in this article (32–2184 to 32–2190) and except as to those provisions of this act which by their very nature can have no application.

32–2186. RIDING ON BICYCLES. A person propelling a bicycle shall not ride other than upon or astride a permanent and regular seat attached thereto.

32–2187. CLINGING TO VEHICLES. No person riding upon any bicycle, coaster, roller skates, sled, or toy vehicles shall attach the same or himself to any vehicle upon a roadway.

32–2188. RIDING ON ROADWAYS AND BICYCLE PATHS. (a) Every person operating a bicycle upon a roadway shall ride as near to the right side of the roadway as practicable, exercising due care when passing a standing vehicle or one proceeding in the same direction.

(b) Persons riding bicyles upon a roadway shall not ride more than two (2) abreast except on paths or parts of roadways set aside for the exclusive use of bicycles.

(c) Whenever a usable path for bicycles has been provided adjacent to a roadway, bicycle riders shall use such path and shall not use the roadway.

32–2189. CARRYING ARTICLES. No person operating a bicycle shall carry any package, bundle, or article which prevents the driver from keeping at least one (1) hand upon the handle bars.

32–2190. LAMPS AND OTHER EQUIPMENT ON BICYCLES. (a) Every bicycle when in use at nighttime shall be equipped with a lamp on the front which shall emit a white light visible from a distance of at least five hundred (500) feet to the front and with a red reflector on the rear of a type approved by the board which shall be visible from all distances from fifty (50) feet to three hundred (300) feet to the rear when directly in front of lawful upper beams of head lamps on a motor vehicle. A lamp emitting a red light visible from a distance of five hundred (500) feet to the rear may be used in addition to the red reflector.

(b) Every bicycle shall be equipped with a brake which will enable the operator to make the braked wheels skid on dry, level, clean pavement.

Be sure to check city ordinances for local laws.

Bicycle Size

For safety, a student's bicycle must be the right size. If the bike is too large or too small, it will be hard to control and will make the rider tired much more quickly.

If the bicycle is too large, it will sway from side to side and the rider can't come to a stop without leaning to one side. If it is too small, the rider will bump his knees and the bike will be difficult to steer.

Also, bicycling is easier and more fun if the leg muscles can be flexed fully. The muscles won't tire as easily as when the muscle doesn't get fully extended.

Measure the distance from the child's crotch to the floor while wearing flat heeled shoes to see what size bike a child needs. If the leg length is between 29½ and 35 inches, a 19" frame is recommended. From 35" to 38", a 23" or 24" frame is recommended. Above 38", an adult's bike (26" or more) can be ridden.

When buying a bike, one should also check for accessories. The reflector should be seen from at least 300 feet. The front light should be white and be visible at least 500 feet away. The horn or bell should be audible at least 100 feet away. There should be a carrier or basket according to needs. There should be a mud guard and a proper chain guard.

Stopping

Bicycles equipped with front wheel caliper brakes, common for high rise bicycles, can be stopped in a shorter distance than bicycle with rear coaster brakes, typical of conventional models. The data available indicates that with caliper brakes, stopping distances increase with rider weight. No such variation is found with coaster brakes. Rear coaster brakes and rear caliper brakes are equally effective in panic stops.

Generally, hard rear wheel braking is much more easily handled by the experienced driver than front wheel braking.

When the operator stands upright on the pedals, hard front wheel braking can lead to forward pitch-over of the rider. When this occurs, the motion is so rapid that there is little that the unsuspecting rider, even a very experienced one, can do to avoid a bad fall. Findings show that as long as the rider remains seated, on either type of bicycle, a potentially injurious pitch-over could not be induced with either bicycle. On dry, level asphalt, the test rider was able to make both bicycles pitch-over by standing on the pedals and applying hard front wheel braking. On a polished concrete surface, only the high rise bicycle could be made to pitch-over.

The bicycle must have a brake that takes hold quickly and makes the rear wheel skid on a dry, clean, level pavement. The arm of the coaster brake must be firmly attached to the frame; otherwise, braking power is lost. The brake pads on bicycles should be inspected weekly for wear and proper positioning. Brake cables should be checked for wear, fraying, and binding. Caliper brakes lose their efficiency when wet. Extreme caution must be exercised when riding in wet weather or in areas where heavy dew or puddles might wet the pads and rims.

Traffic Control Signs

STOP – Means stop. It is a white message with white border on red background. The sign is octagon in shape.

YIELD – Means slow to 15 mph or less and proceed with caution. The YIELD sign is a downward pointing, equilateral triangle having a red border band leaving a white interior with the word YIELD in red inside the border band.

WARNING – Means danger ahead, proceed with caution. Coloring is traditionally black on yellow and the shape is diamond.

REGULATORY – Contains a specific instrution to the driver. The signs are rectangular with black lettering on a white background.

RAILROAD – Means a railroad intersects the path. The highway sign is yellow with black lettering and a black crossbuck. The railroad crossing sign is a white crossbuck with black lettering.

SCHOOL CROSSING – Means a crossing near a school. The signs are pentagon shaped, yellow in color with a black border band, lettering and figures. The school crossing sign has the figures walking within a crosswalk while the advance warning sign has just the figures.

GUIDE – Provides information. It is green with a white border band and lettering. For most guide signs the legend is so variable that there can be no rigidly standardized size.

NO PASSING ZONE – Identifies the conventional no passing pavement markings. The sign is pennant in shape and has black lettering and border band on a yellow background.

SLOW MOVING VEHICLE – The vehicle operates at 25 mph or less. It has a triangular shape with a wide red border band, orange interior and no lettering.

Standard Colors

RED: Stop or prohibition. GREEN: Indicated movements permitted, direction guidance. BLUE: Motorist services guidance. YELLOW: General warning. BLACK: Regulation. WHITE: Regulation. ORANGE: Construction and maintenance warning. BROWN: Public recreation and scenic guidance.

Traffic Control Signals

Each traffic signal has a specific meaning for the bicycle operator.

GREEN LIGHT – indicates that the bicyclist may proceed if the way is clear.

RED LIGHT – indicates that the bicyclist is to stop.

YELLOW LIGHT – is a caution light indicating that the bicyclist is not to proceed through the intersection until the light turns green, unless already in or very near to the intersection when the light turned yellow.

GREEN ARROW – indicates that the bicyclist may proceed cautiously in the direction that the arrow is pointing.

FLASHING RED LIGHT – indicates that the bicyclist is to come to a complete stop and then proceed if the way is clear.

FLASHING YELLOW LIGHT – indicates that the bicyclist is to reduce his speed and then proceed with caution.

Traffic Control Markings

Markings have definite and important functions to perform in a proper scheme of traffic control. In some cases, they are used to supplement the regulations or warnings of other devices such as traffic signs and signals.

Pavement markings have definite limitations. They are obliterated by snow, may not be clearly visible when wet, and may not be very durable when subjected to heavy traffic.

Longitudinal pavement marking color use is as follows: Yellow lines delineate the seperation of traffic flows in opposing direction or mark the left boundary of the travel path at locations of particular hazard. White lines delineate the seperation of traffic flows in the same direction. Red markings delineate roadways that shall not be entered or used by the viewer of those markings.

Broken lines are permissive as opposed to solid lines being restrictive in character. Width of lines indicates the degree of emphasis. Double lines indicate maximum restrictions.

Curbs painted red or yellow indicate no parking.

Horizontial pavement markings serve as a guide for pedestrians. At non-intersectional locations, these markings legally establish the crosswalk. Horizontal line may also indicate a stop line to the bicyclist.

Other markings may indicate a railroad crossing, directional arrows and word markings.

Hand Signals

The use of hand signals now is commonly accepted as a safe riding practice. The motor vehicle laws of Montana require such signals. Signaling intention to turn, slow down, or stop gives the motorist behind, as well as the one approaching, an opportunity to anticipate the cyclist's movement. The bicycle operator should signal well in advance so that both hands are on the handlebars when the maneuver is made. This is especially important when the bicycle is equipped with hand brakes. Since all signals are made with the left hand, it is important that the control for the rear brake is located on the right handlebar. It is a simple matter to switch the brake control if necessary. Unless local regulations differ, standard hand signals are as follows: Left turn–hand and arm extended horizontally; Right turn–hand and arm extended upward; Stop and/or slow–hand and arm extended downward.

In order to turn left at intersections in the business area or where there is heavy or high-speed vehicular traffic, a bicyclist should dismount and follow the pedestrian crosswalk to the far right corner, then proceed across at right angles. In this way, he crosses one direction of traffic at a time. He should avoid heavily traveled routes if others are available. If riding on the sidewalk is allowed by ordinance, or if the driver is too young to be allowed in traffic, care should be taken when riding on the sidewalk to avoid striking or alarming pedestrians.

Skills

It is imperative that the cyclist develop skill in balancing and pedaling to avoid swerving into traffic, running off the edge of a sidewalk or highway, and to avoid hitting a pedestrian or fixed object at a narrow passing. Parents have a responsibility to be sure the child has the skill to cope with traffic before permitting him to drive on the street. Learners should be taught to coast with the pedals level (horizontal) in readiness to apply the brakes, and to avoid scraping the lower pedal on turns.

When overtaking slow moving vehicles, a cyclist must be careful to avoid being struck or crowded by vehicles about to turn into a driveway or alley. The cyclist must be especially alert, when passing parked cars, for doors which might be opened in his path.

Parked cars with someone in the driver's seat should be given as wide a berth as possible. A cyclist should never ride into the roadway from the yard, driveway or alley without looking carefully in all directions.

It is highly desirable to remain inside the car during an automobile collision. Not so with a bicycle. The rider has to free himself from the bicycle immediately when a collision appears imminent. Design features that can be impacted by the rider or hinder his ability to free himself, such as high rise handlebars and gear-shift levers, should be avoided. The horizontal frame member in front of the rider on all boys' bicycles tends to make it more difficult for the rider to free himself from the bike. Therefore, learners and novice riders should use girls' style bicycles since they are easier to dismount in case of a collision.

Carrying more passengers than the bicycle is designed and equipped for is dangerous. Passengers obstruct the driver's vision, make balancing difficult, and increase the danger of getting part of the body or clothing caught in the spokes. Two on a bicycle also greatly increases the stopping distance. The "polo" or "banana" seat on the high rise bicycle appears to be designed to carry two; however, such is not the case.

All human activity involves a degree of risk. What becomes important then is instilling in student a personal and social attitude toward their choices of action in traffic interaction. For this reason, at every age, the students are encouraged to consider the consequencies.

The primary consideration becomes how much risk a person is ready to accept in his life style.

Intersections

CONTROLLED – (a) If more than one vehicle operator arrives at a four-way stop at the same time, give the driver on the right the right-of-way, but only after they have come to a full stop. Courtesy dictates which driver proceeds.

(b) If only one of the crossroads has a stop sign, the driver in that lane must stop, then yield to all other vehicles and pedestrians.

(c) If there is a red light or stop sign, the bicyclist should stop behind the white line or marked or unmarked crosswalk.

UNCONTROLLED – (a) When two bicyclists arrive at an uncontrolled intersection at about the same time, the bicyclist on the left must yield the right-of-way to the driver on the right.

(b) The bicyclist should never enter the intersection until it is safe to enter.

(c) The bicyclist should yield the right-of-way to pedestrians that are in the crosswalk.

(d) The bicyclist should never make a turn in front of a moving vehicle.

Facts

For the five years, 1965-69, only one year,1967, shows an even division between urban and rural areas for bicycle-motorcar fatalities; for the other four years, somewhat more than half occurred in rural areas (defined as having less than 2,500 inhabitants, except those areas classified "urban" by the U.S. Census Bureau).

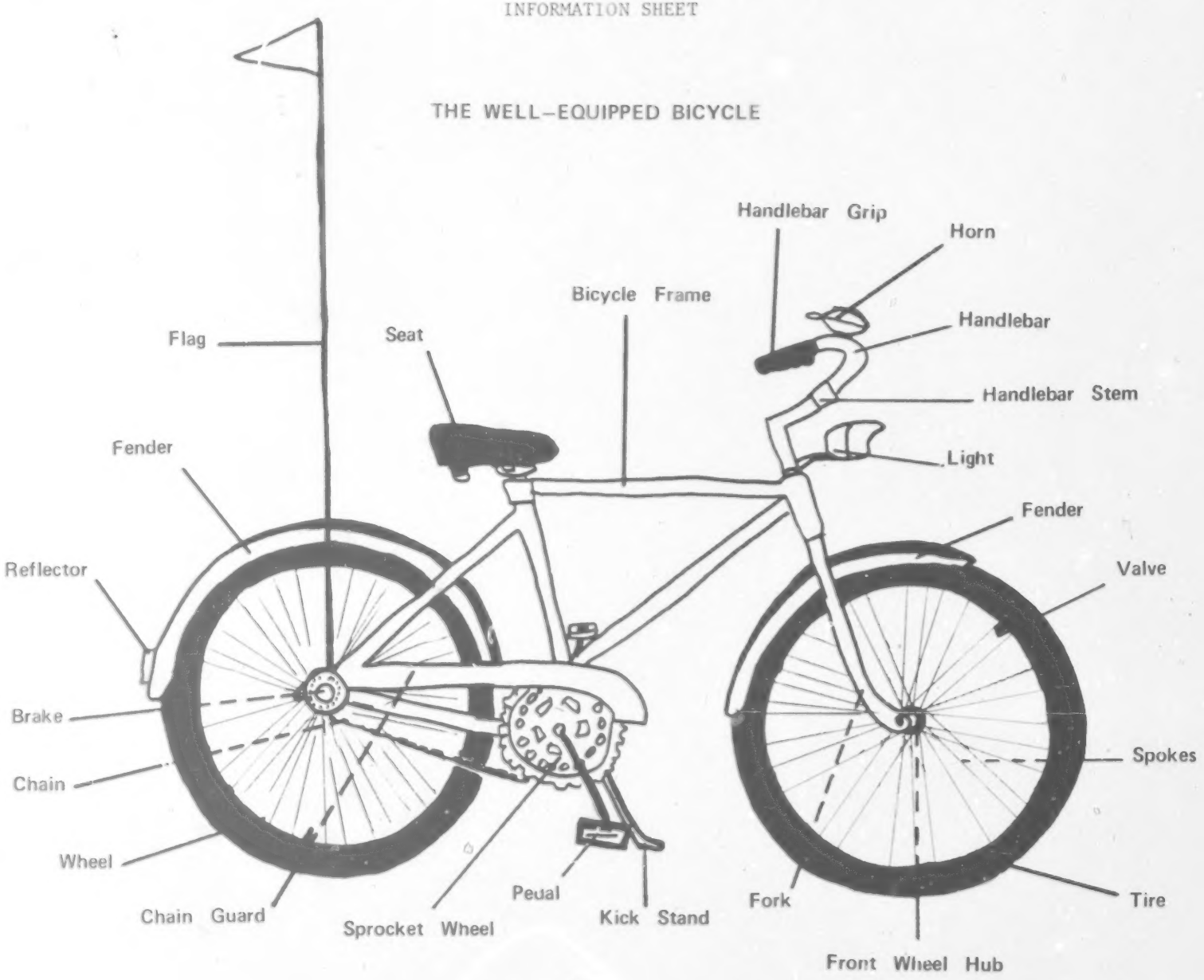
Nonfatal accidents are more likely to occur in residential areas (city streets), while fatal accidents are most likely to occur in open country (major and minor roads). This is probably related to the higher speeds of motorcars outside the city or town. Compared with all fatal motor vehicle accidents, fatal bicycle accidents show a larger proportion occurring where there is some kind of intersection of vehicle pathways. This is also true of nonfatal accidents.

One study found 96% of all bicycle-motorcar collisions occurred within one mile from home, and 57% within one block; also, intersections of some kind were the most frequent site of collisions: "... 82% of collisions relate to maneuvers by the bicyclist to enter into, to turn across, or cross through a flow of traffic."

In two studies, about 40% of the cyclists of grade-school age, said they ride on the right side of the street, 40–50% said they ride on both sides, and 10–15% said they ride on the left side. Some ride on the sidewalk. Apparently, there is some confusion, lack of knowledge, or disregard with respect to rules and regulation of safe operating procedures.

*Bicycle fatalities will exceed 10,000 in 1974.
*Ninety-percent of bicyclist fatalities due to bicycle-car collisions are males.
*In a study of 275 collisions with cars, 93% involved male bicylcists.
*In a 5 year study, over 60% of the bicycle-car fatalities and 75% of the injuries were in the age group of five through fourteen.
*After school and early evening hours are the peak periods for collisions.
*In a great number of bicycle-car collisions, the driver of the car is not cited for a violation.
*Twenty-percent of the bicycle collisions with cars involved a passenger or a hand-held load.
*It has been pointed out, many bicyclists were not riding their own bicycle.

THE WELL-EQUIPPED BICYCLE



PRE/POST SELF ASSESSMENT GRADE SIX PRE ASSESSMENT_____

STUDENT _____ POST ASSESSMENT_____

Explanation: This Pre/Post Self Assessment is suggested for use at the beginning and/or end of this learning unit.
Directions: *CIRCLE* the letter of the *BEST* answer in each of the problems below:

1. If, for some unknown reason, an approaching driver straddles the center line, it is best to:
   a. apply the brakes and stay in your lane.
   b. sound horn and hold the center of your lane.
   c. pull off as far to the right as possible, go off the pavement if necessary.
   d. pull quickly to the left and let the approaching driver have your lane.

2. Why do wet roads reduce traction?
   a. rubber tires absorb water.
   b. generally, road surfaces absorb water.
   c. Rubber tires do not absorb water.
   d. Water acts as a lubricant to reduce friction.

3. Which of the following poses the greatest danger to the operator who wants to pass?
   a. The possibility of bicycle failure.
   b. Unexpected blind intersection ahead.
   c. His error in judgement and his impatience.
   d. The likelihood of bumps or holes in the road.

4. Which of the following is an example of proper brakes?
   a. Hard pressure on the brake causes the rear wheel to lock.
   b. Continuous hard pressure on the pedals causes the pedals to go backwards slowly.
   c. Slack brake cable.
   d. Noise when the brakes are applied.

5. Skidding caused by application of the brakes can occur
   a. on any surface, wet or dry.
   b. only on wet surfaces.
   c. only on icy and snowy surfaces.
   d. only if the tires are smooth.

6. What should an operator do if a car cuts in too closely in front of him?
   a. Move sharply to another lane.
   b. Slow down to increase the following distance.
   c. Speed up, pass the car, and get away from it.
   d. Maintain this new following distance so as not to shorten the following distance of the car behind him.

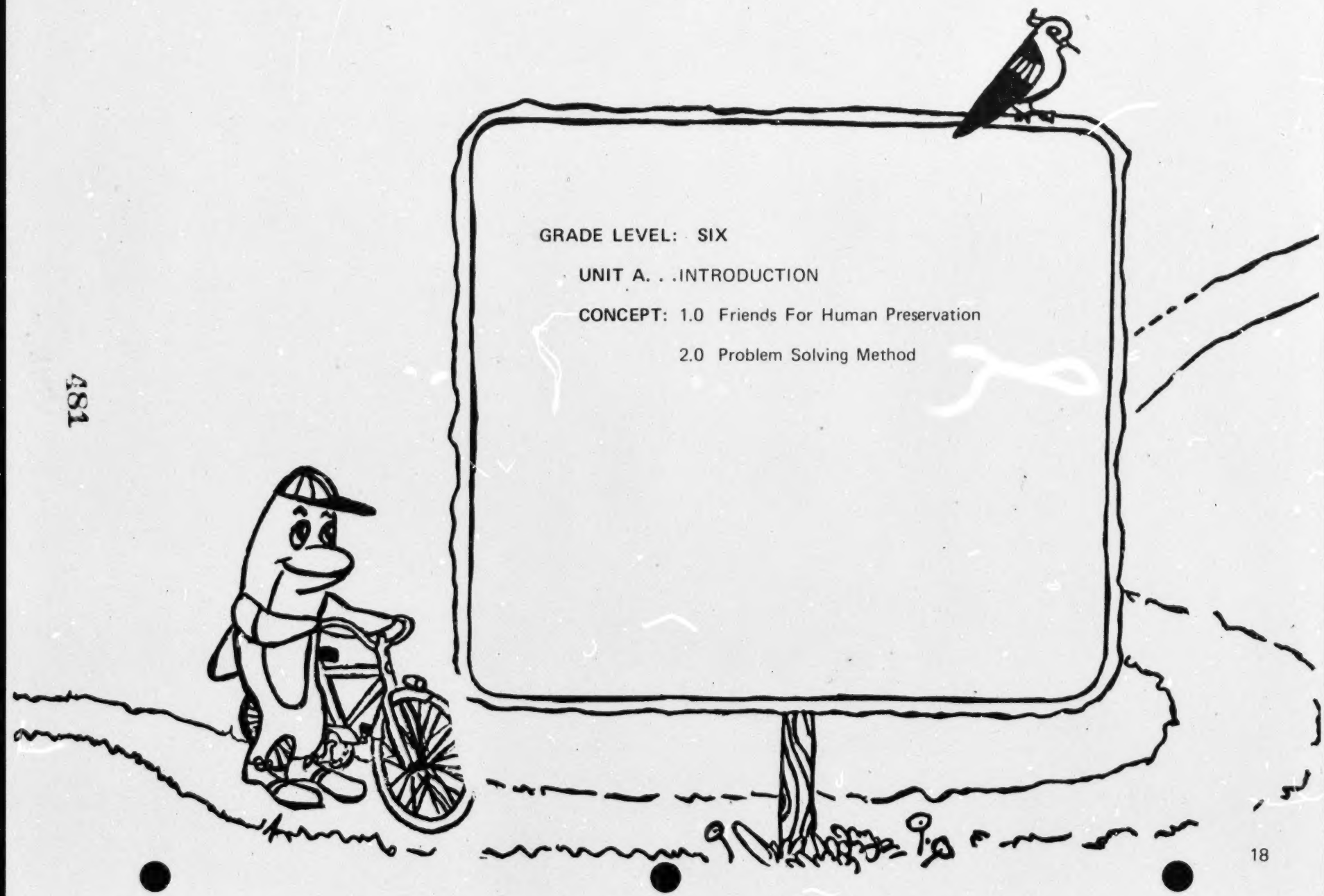
7. What is the safest way to slow down on ice?
   a. Take feet off the pedals.
   b. Apply hard, steady brake pressure.
   c. "Pump" the brake pedals rapidly.

8. What should an operator do when he is tailgated?
   a. Pull off the road as quickly as possible.
   b. Speed up and slow down intermittently to discourage the "tailgater" from following too closely.
   c. Slow down enough to encourage the "tailgater" to safely pass.

9. What is the most important factor in keeping bicycles in a safe condition at all times?
   a. Voluntary maintenance.
   b. Inspection by privately owned stores.
   c. Inspection by police department.

Answers:

1. c	4. a	7. c
2. d	5. a	8. a
3. c	6. b	9. a


GRADE LEVEL: SIX
UNIT A. . .INTRODUCTION
CONCEPT: 1.0 Friends For Human Preservation
2.0 Problem Solving Method

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Six

Applied Instruction: Language Arts
Math

UNIT A. . .INTRODUCTION

CONCEPT: 1.0 Friends For Human Preservation

PERFORMANCE OBJECTIVE: The student will know the purpose of the friends for human preservation.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 7	1.1 Instructor/student discuss the purpose of the friends for human preservation. 1.2 Instructor/student discuss each of the friends' activity in human preservation.	1.1 Student tells about the purpose of the friends for human preservation. 1.2 Student picks out which friend for human preservation is a symbol for what activity. Transparency Original No. 1
Student Material Transparency Original No. 1		
Reinforcement Activity Large symbols of other animals could be displayed.		

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NEW WORDS: human, preservation, symbol, bicyclist, passenger, pedestrian

TRANSPARENCY ORIGINAL No. 1

HERE ARE MONTANA'S FRIENDS FOR HUMAN PRESERVATION SYMBOLS. THEY WILL SHARE WITH YOU THE THINGS TO KNOW AS A BICYCLIST, A PASSENGER, AND A PEDESTRIAN.

DICK DOLPHIN, BICYCLIST

PATTY PENGUIN, PASSENGER

SEEMORE SEAL, PEDESTRIAN

1. WHAT IS A SYMBOL?

2. SYMBOLS ARE USED IN MATH. SOLVE THIS PROBLEM USING THE SYMBOLS SHOWN.

   FIND THE CIRCUMFERENCE OF A BICYCLE TIRE TO DETERMINE HOW FAR A BICYCLE TRAVELS EACH TIME THE WHEEL MAKES A COMPLETE TURN.
   USE THE EQUATION $C=\pi d$ . . . C=3.14 x 26"

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Six

Applied Instruction: Language Arts
Social Studies

UNIT A. . .INTRODUCTION

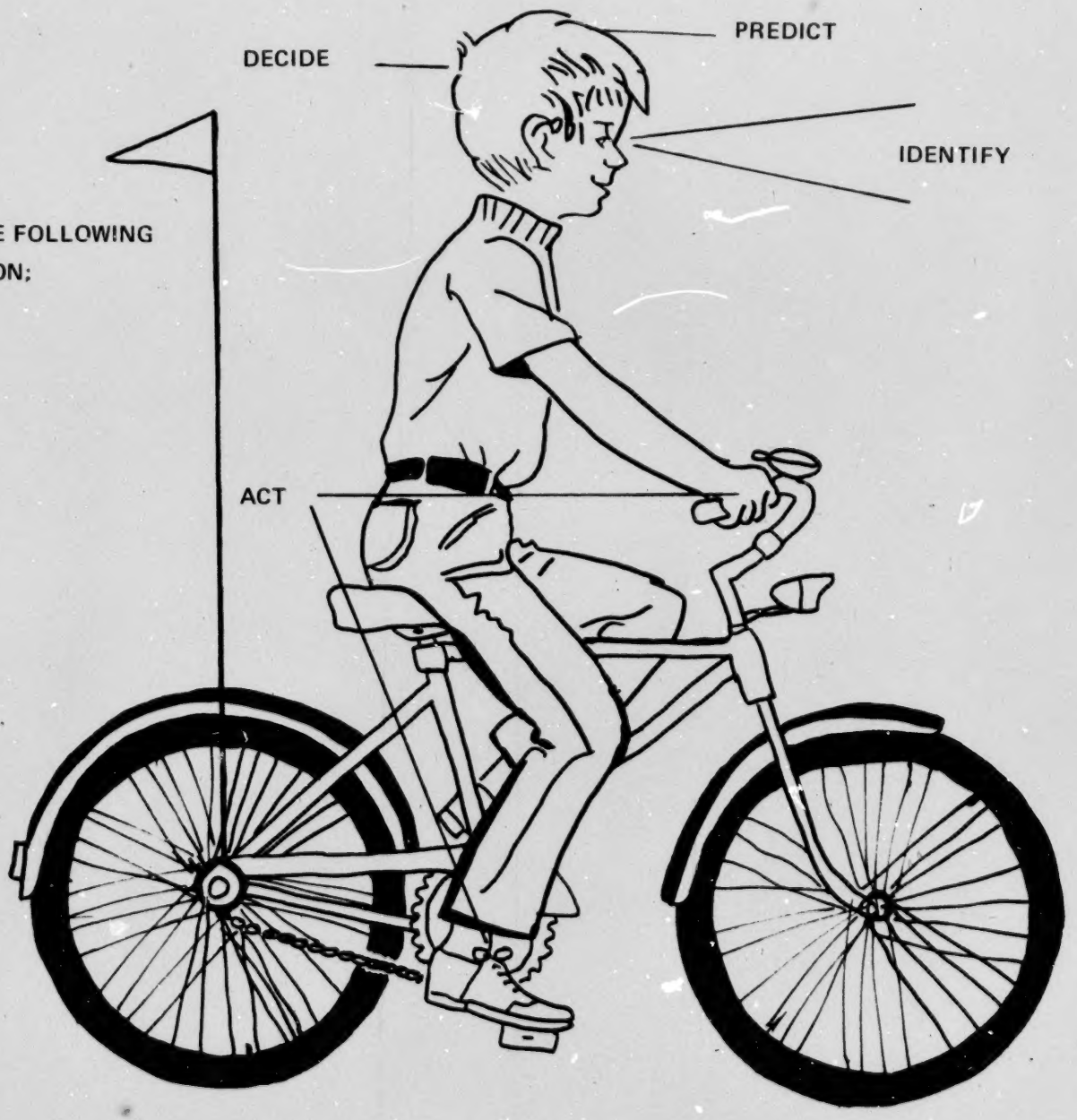
CONCEPT: 2.0 Problem Solving Method

PERFORMANCE OBJECTIVE: The student will understand the identify, predict, decide, and act problem solving method.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Note: The identify, predict, decide, and act problem solving methods is practiced through the following: IDENTIFY driving clues – As you drive, single out possible hazards ahead by watching, listening, sensing. PREDICT actions of others – Try to anticipate what a driver or pedestrian will do. Assess the risks by observing behavior and considering time-space judgements and vehicle capabilities. DECIDE what to do – Plan the actions you will take if the unexpected occurs, and decide if your response will be simple, complex, or sudden. ACT on the decision – Time counts, so take immediate action. Information Sheet, page 9 **Student Material** Transparency Original No. 2	2.1 Instructor illustrates how the identify, predict, decide, and act problem solving method can be used in traffic.	2.1 Student understands problem solving method. Transparency Original No. 2

NEW WORD: horsepower

TRANSPARENCY ORIGINAL No. 2



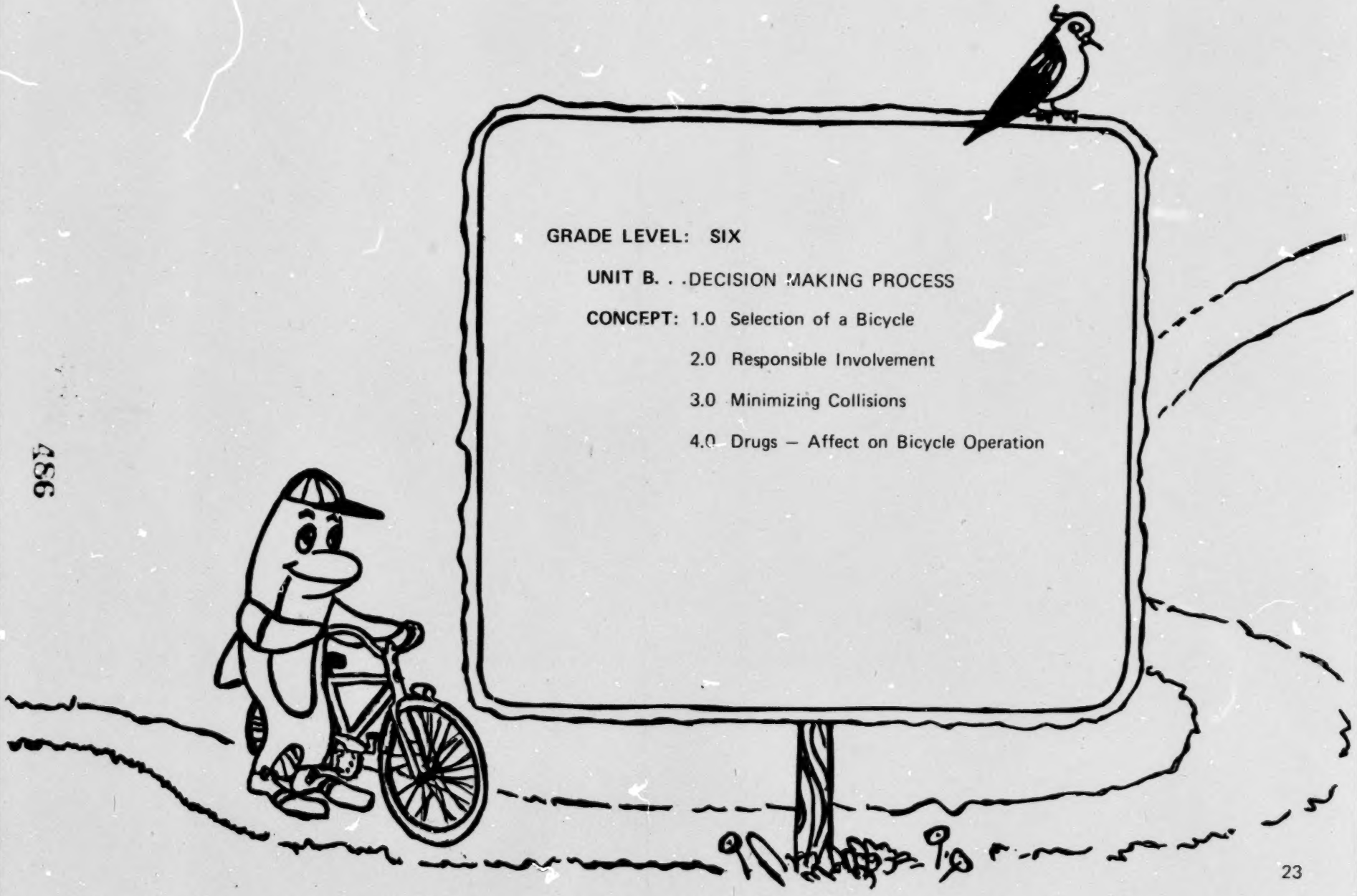
EXPLAIN WHAT EACH OF THE FOLLOWING MEANS ON THE ILLUSTRATION:

IDENTIFY:

PREDICT:

DECIDE:

ACT:


GRADE LEVEL: SIX
UNIT B. . .DECISION MAKING PROCESS
CONCEPT: 1.0 Selection of a Bicycle
2.0 Responsible Involvement
3.0 Minimizing Collisions
4.0 Drugs – Affect on Bicycle Operation

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Six

Applied Instruction: Math
Language Arts

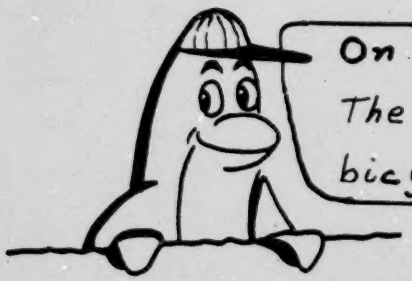
UNIT B. . .DECISION MAKING PROCESS

CONCEPT: 1.0 Selection of a Bicycle

PERFORMANCE OBJECTIVE: The student will evaluate how bicycle style, operation and model, directly influence the saleability of a bicycle.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Resource person: bicycle salesman Information Sheet, page 11 & 14	1.1 Instructor/student discuss how operator performance maybe affected with regard to: a. Bicycle model b. Size c. Style d. One speed versus multi speed	1.1 Student compares the differences of performance with the type of bicycle selected.
	1.2 Instructor/student discuss how the bicycle industry influences the owner's choice of a bicycle. **Trigger Questions** a. Who determines the design of a bicycle? b. How does demand influence the bicycle industry? c. How important are options on a bicycle? d. What are some of the "fads" in bicycles now? e. How have bicycles changed historically?	1.2 Student discusses the influence the bicycle industry has on the type of bicycle sold. Individualized Learning Guide No. 3
Student Material Individualized Learning Guide No. 3		
Reinforcement Activity Student writes an advertisement to sell a bicycle he now owns or has seen. Exchange the advertisement with a classmate and discuss purchase.		

NEW WORDS: influence, saleability



On This picture draw The safety items that should be on The bicycle and what you would like to have on the bicycle. How much will The options cost?

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Six

Applied Instruction: Health
Social Studies

UNIT B. . .DECISION MAKING PROCESS

CONCEPT: 2.0 Responsible Involvement

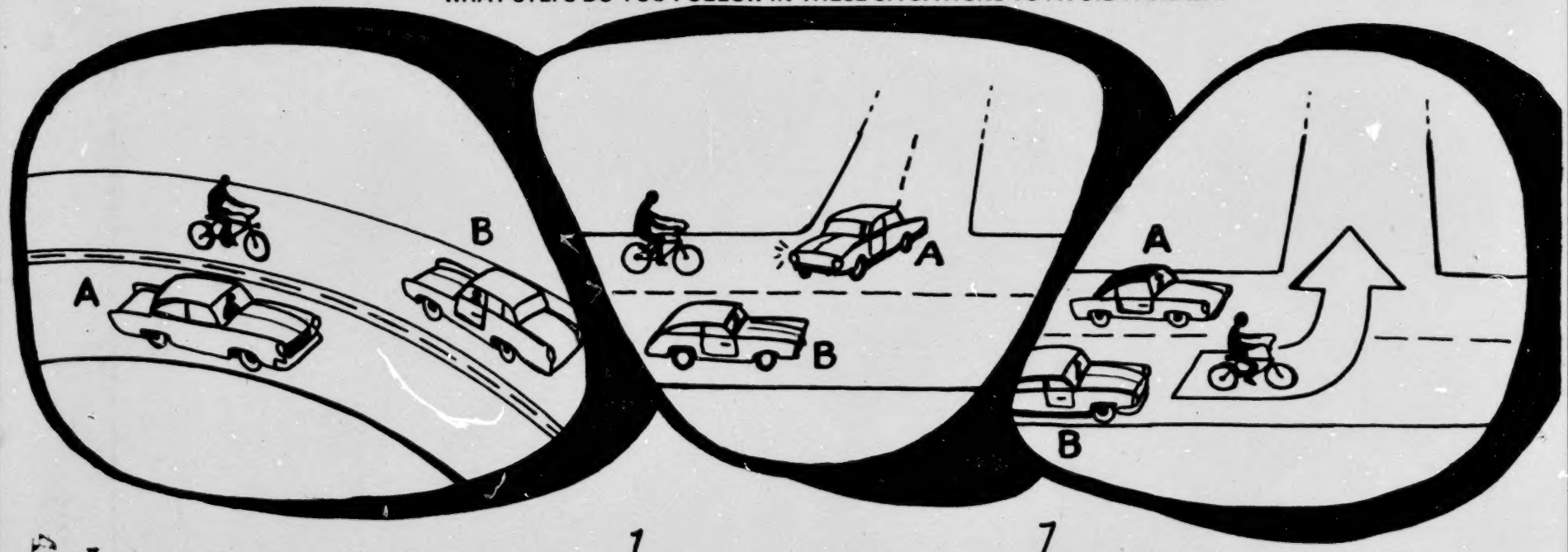
PERFORMANCE OBJECTIVE: The student will identify the procedures to follow at the scene of a collision.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructional Material Sample accident report form, page 31	2.1 Instructor/student discuss collision procedures with emphasis on: a. Stopping– when, where and how to stop. b. Notify law enforcement authorities– police, highway patrol, sheriff. c. Assisting the injured– what action to take regarding injured. d. Exchanging information– what not to admit, witnesses, pertinent information. e. Sketching the collision– names of streets, control devices, condition. f. Accident reporting– where to obtain form and where form should be sent.	2.1 Student identifies the steps to be taken at the scene of a collision. Individualized Learning Guide No. 4 Transparency Original No. 5, 6 & 7
Student Material Individualized Learning Guide No. 4 & 8 Transparency Original No. 5-7	2.2 Instructor diagrams simulated collision and discusses procedures at the scene of the collision. (Montana Good Samaritan Law)	2.2 Student discusses procedure at the scene of the collision.
Reinforcement Activity Crossword Puzzle, appendix A, C & F	2.3 Instructor discusses the information that should be left at the scene of a collision involving an unattended vehicle and procedures. a. Report collision to authorities if damage exceeds $250.00 or injury. b. Leave identification on vehicle if owner and/or authorities cannot be located. c. Record license number. d. Obtain names and addresses of witnesses. e. List details of the collision. f. Check to see if family insurance covers damage.	2.3 Student formulates a note, listing the information, that would be left at the scene of a collision with an unattended vehicle.
	2.4 Instructor assists student in completing a Montana Accident report which has been obtained from authorities.	2.4 Student will complete a Montana Accident Report form. Individualized Learning Guide No. 8

NEW WORDS: authority, pertinent, notify, estimated, insurance, witness

INDIVIDUALIZED LEARNING GUIDE No. 4

WHAT STEPS DO YOU FOLLOW IN THESE SITUATIONS TO AVOID A CRASH?



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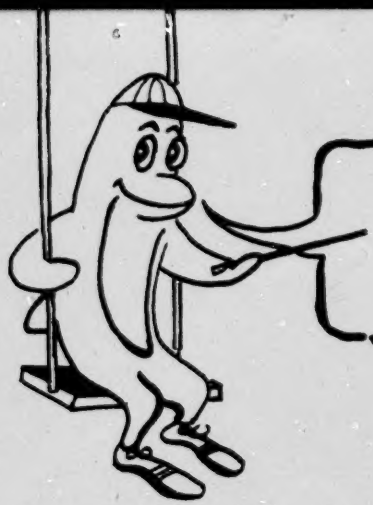


POST COLLISION INVOLVEMENT....

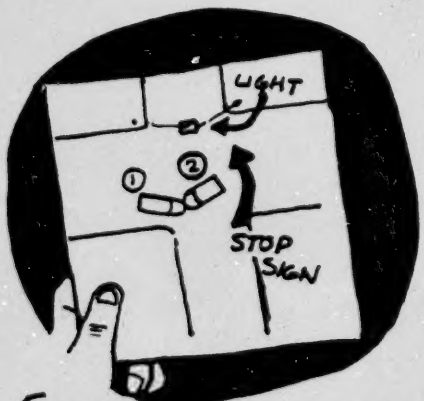
Here's what to do —

1. SEND FOR AUTHORITIES. (POLICE, HIGHWAY PATROL, SHERIFF)

2. GET NAME AND ADDRESS OF OPERATOR OF INVOLVED VEHICLES.

3. GET NAMES OF WITNESSES.

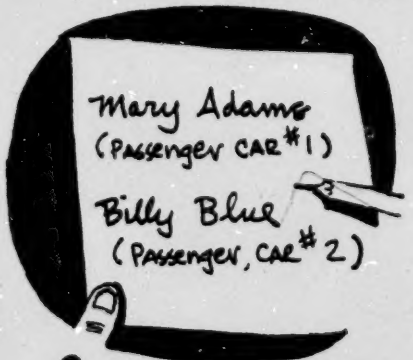
4. GET DETAILS:
ROAD CONDITIONS
TRAFFIC CONTROLS
SPECIAL CONDITIONS



5. DRAW A SKETCH OF COLLISION.

6. DO NOT ARGUE OR ACCUSE. ADMIT NOTHING. SIGN NO PAPERS.

7. NOTIFY INSURANCE COMPANY.

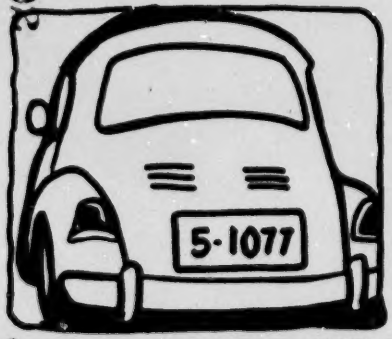


8. RECORD NAMES OF OCCUPANTS OF VEHICLES.

TRANSPARENCY ORIGINAL No. 6

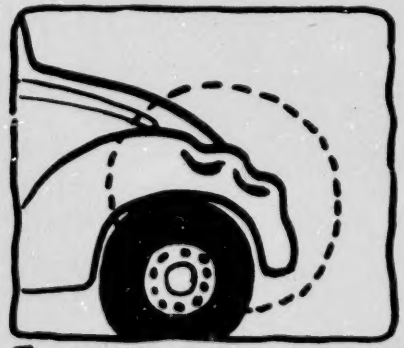
STRIKING AN UNATTENDED VEHICLE

1. LEAVE A NOTE WITH:
   - A. Your full name.
   - B. Your address.
   - C. Your telephone number.



1 LICENSE NUMBER OF VEHICLE YOU STRUCK.

2 DESCRIPTION OF VEHICLE: YEAR, MAKE, MODEL, COLOR.

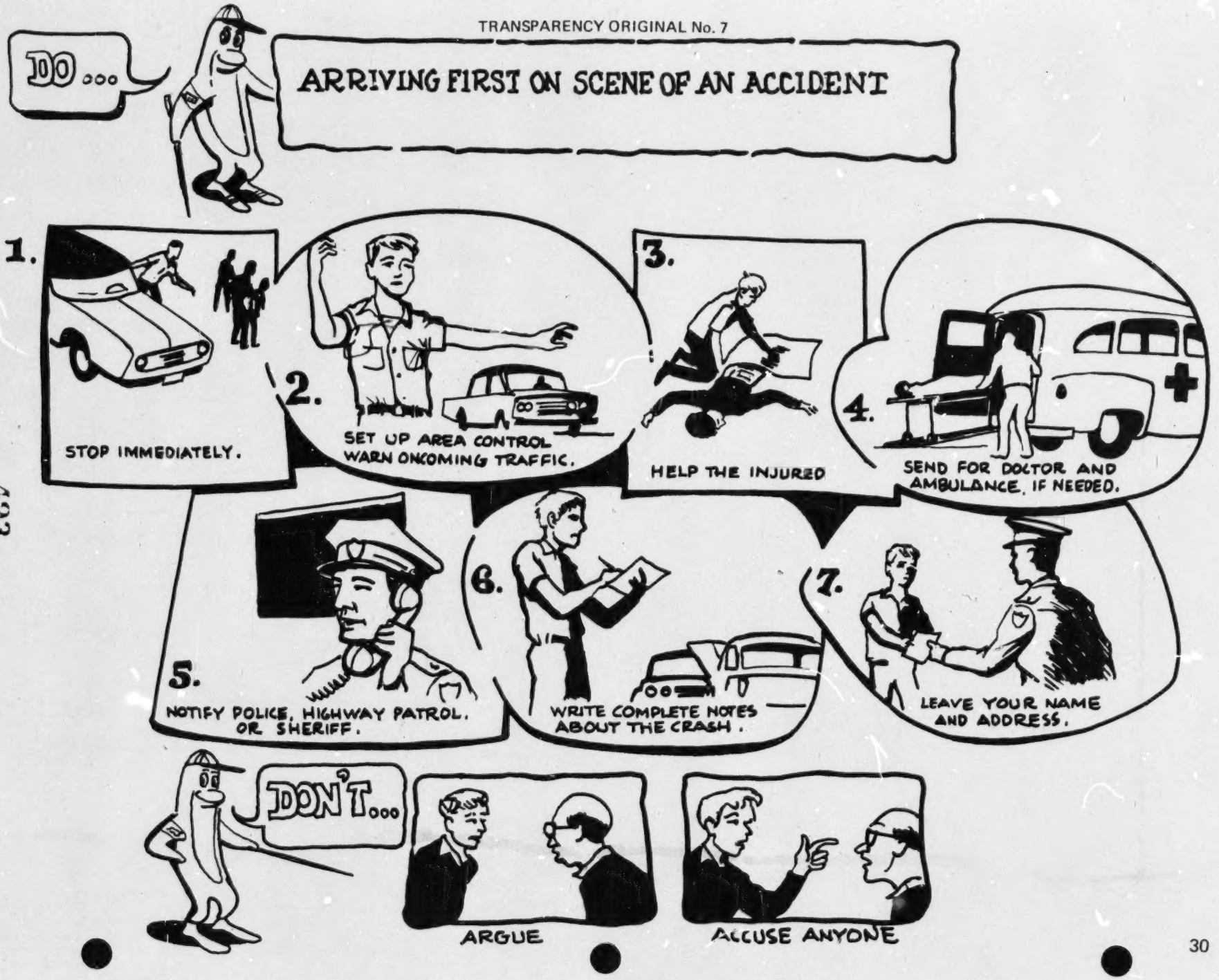


3 NOTE VEHICLE DAMAGE AND AREA YOU STRUCK.

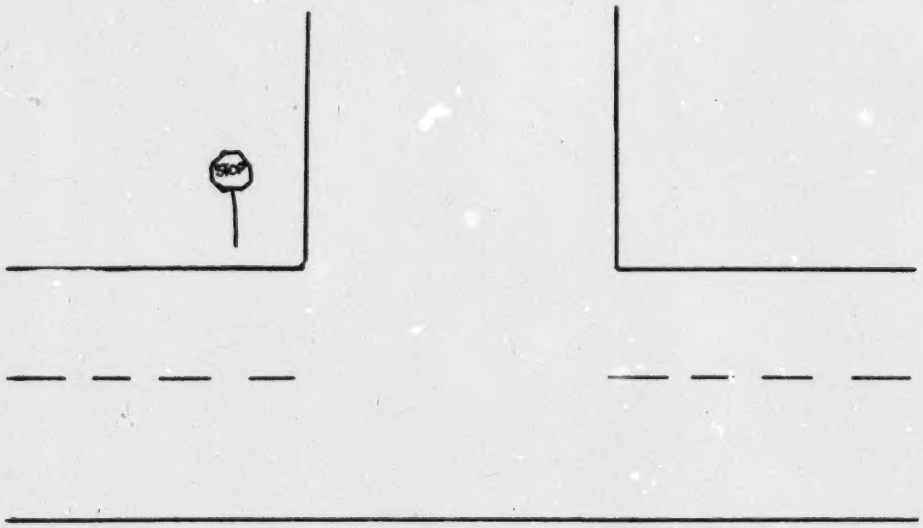
4 OBTAIN NAME AND ADDRESS OF ALL WITNESSES.

5 REPORT THE ACCIDENT TO THE PROPER AUTHORITIES.

6 NOTIFY YOUR INSURANCE COMPANY.


DO ...
ARRIVING FIRST ON SCENE OF AN ACCIDENT
1.
STOP IMMEDIATELY.
2.
SET UP AREA CONTROL
WARN ONCOMING TRAFFIC.
3.
HELP THE INJURED
4.
SEND FOR DOCTOR AND
AMBULANCE. IF NEEDED.
5.
NOTIFY POLICE, HIGHWAY PATROL.
OR SHERIFF.
6.
WRITE COMPLETE NOTES
ABOUT THE CRASH.
7.
LEAVE YOUR NAME
AND ADDRESS.
DON'T ...
ARGUE
ACCUSE ANYONE

SAMPLE ACCIDENT REPORT FORM



1. Show names of highways and streets.
2. Show points of compass (N, E, W, S)
3. Show direction of vehicles involved.
4. Designate your bicycle —— black.
   Other vehicle [____] white.
   If more than one, number and label.

ROAD CHARACTER

_____straight road
_____curve
_____level
_____on grade
_____hill crest

ROAD SURFACE

_____dry
_____wet
_____muddy
_____snowy
_____ice

ROAD DEFECTS

_____defective shoulders
_____holes, deep ruts, bumps
_____loose materials on surface
_____other (specify)_____
_____no defects

TRAFFIC CONTROL

_____stop sign
_____stop–and–go signal
_____other (specify)_____
_____no traffic control

LIGHT

_____daylight
_____dusk
_____dawn
_____darkness–streets lighted
_____darkness–streets not lit

WEATHER

_____clear
_____raining
_____snowing
_____fog
_____other (specify)_____

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Six

Applied Instruction: Math
Science
Language Arts

UNIT B. . .DECISION MAKING PROCESS

CONCEPT: 3.0 Minimizing Collisions

PERFORMANCE OBJECTIVE: The student will recognize common safety practices which minimize collisions.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material	3.1 Instructor/student discuss common safety practices.	3.1 Student will be aware of common safety practices which minimize collisions. Individualized Learning Guide No. 9 Transparency Original No. 10
	3.2 Instructor will explain the identify, predict, decide and execute problem solving procedure.	3.2 Student will understand how collisions can be minimized by use of the identify, predict, decide and act problem solving method. Individualized Learning Guide No. 9-11
Student Material Individualized Learning Guide No. 9-11 Transparency Original No. 10		
Reinforcement Activity Newspaper accounts can be utilized.		

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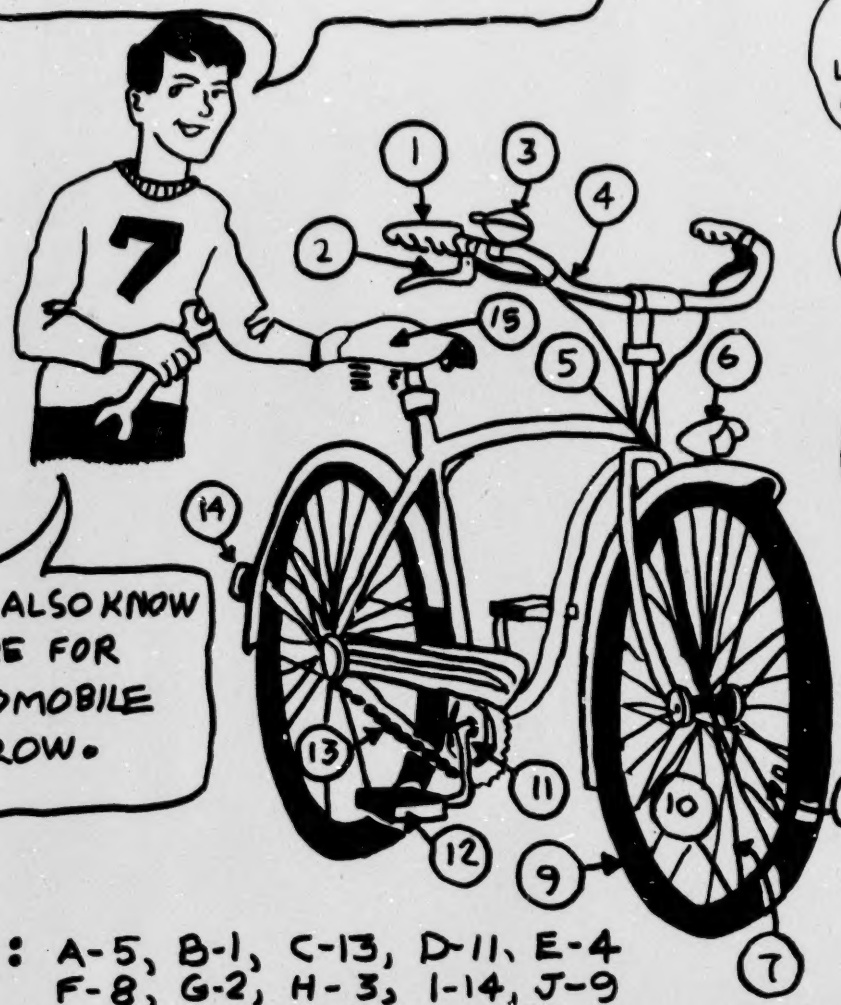
THE OPERATOR... WHO KNOWS AND CARES FOR THE PARTS OF HIS BICYCLE TODAY...

...WILL ALSO KNOW AND CARE FOR HIS AUTOMOBILE TOMORROW.

PUT THE CORRECT NUMBER IN THE BOX WHICH DESCRIBES THE NUMBERED PART.



A FORK BEARINGS
Lubricate adjust

F TIRE VALVE
Inspect for leaks

K SPOKES
Replace broken ones

B HANDLE GRIPS
Replace if worn Cement tightly

G COASTER BRAKES
Lubricate and adjust

L PEDALS
Lubricate and Tighten

C CHAIN
Clean and Lubricate

H WARNING DEVICE
Must be heard 100 ft. away

M WHEELS
Keep nuts tight and bearings oiled

D CRANK HANGAR
Keep clean, greased and tight

I REFLECTOR
Must be visible at 300 ft.

N LIGHT
Must be visible at 500 ft.

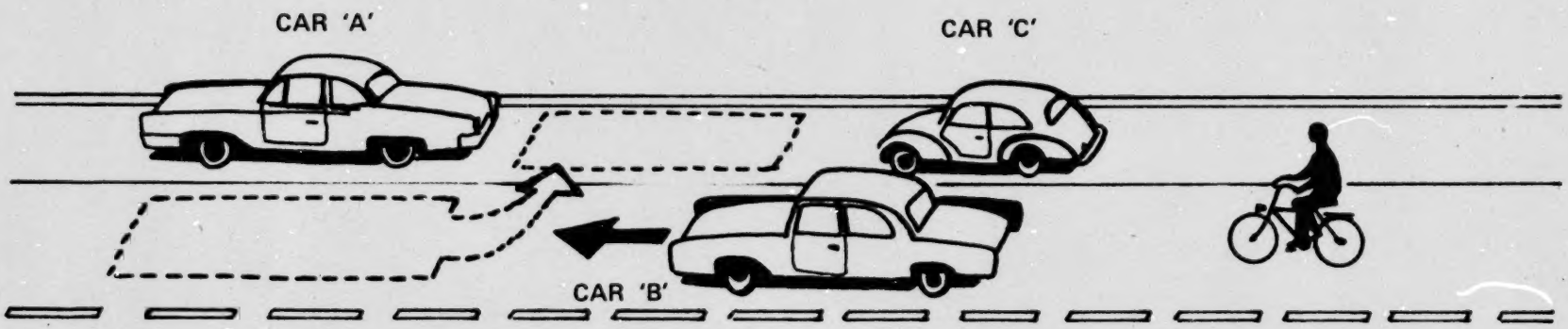
E HANDLE BARS
Adjust and Tighten Set for proper height

J TIRES
Inflate to correct pressure

O SADDLE
Adjust to proper height Tighten all nuts.

ANSWERS: A-5, B-1, C-13, D-11, E-4
F-8, G-2, H-3, I-14, J-9
K-7, L-12, M-10, N-6, O-15

TRANSPARENCY ORIGINAL No. 10



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1. WHAT IS WRONG HERE?
2. WHAT EVASIVE ACTION SHOULD DRIVER 'B' TAKE?
3. EVEN IF THERE IS NO ON– COMING TRAFFIC, WHAT DIFFICULTY DOES THE BICYCLE OPERATOR CONFRONT IN COMPLETING THE PASS?
4. WHAT EVASIVE ACTION SHOULD DRIVER 'A' TAKE?
5. WHAT CHOICE DOES THE BICYCLE OPERATOR HAVE?
6. WHAT CHOICE DOES DRIVER 'B' HAVE?
7. WHAT CHOICE DOES DRIVER 'A' HAVE?

DIRECTIONS: Write a news story about a collision which occured in your area as a result of a bicycle operator's failure to practice one of the listed safety practices.

REMEMBER: News stories should follow these ABC's **A—accurate B—brief C—clear**

1. An operator of a bicyle should keep to the right side of the road at all times.
2. The operator of a bicycle should come to a full stop and wait until it is safe before entering a main road.
3. The operator of a bicycle should constantly be looking for visual clues of danger signs.
4. A bicycle operator should walk his bike across busy intersections.
5. The operator of a bicycle should park his vehicle off the roadway.
6. A bicycle operator should be capable of controlling his bicycle at all times.

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Six

Applied Instruction: Health Science

UNIT B. . .DECISION MAKING PROCESS

CONCEPT: 4.0 Drugs—Affect on Bicycle Operation

PERFORMANCE OBJECTIVE: The student will understand that use of drugs affects bicycle operation.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material "Drug Abuse" American Association of Sheriff Posses & Riding Clubs, P.O. Box 2895, Dallas, Texas 75221 - Free booklet.	4.1 Instructor lists commonly used drugs and discusses with the student the effects drugs have on the body as related to bicycle operation.	4.1 Student is cognizant of commonly used drugs and the effect of drug use on bicycle operation. Individualized Learning Guide No. 12 & 13
	4.2 Instructor discusses with the student which drugs could be used for medicinal purposes and dangerous effects of such use.	4.2 Student understands that some drugs are used for medicinal purposes and as such can impair operator efficiency.
	4.3 Instructor discusses use of some drugs to minimize hyperactivity.	4.3 Student understands that in some cases operating proficiency increases after taking the drug
Student Material Individualized Learning Guide No. 12 & 13		

NEW WORDS: stabilized, dosage, apathy, reflexes, nausea, coordination, medicinal, hyperactivity, proficiency, hallucinations, depression, fatigue, drowsiness, stupor, impairment, distort, panic

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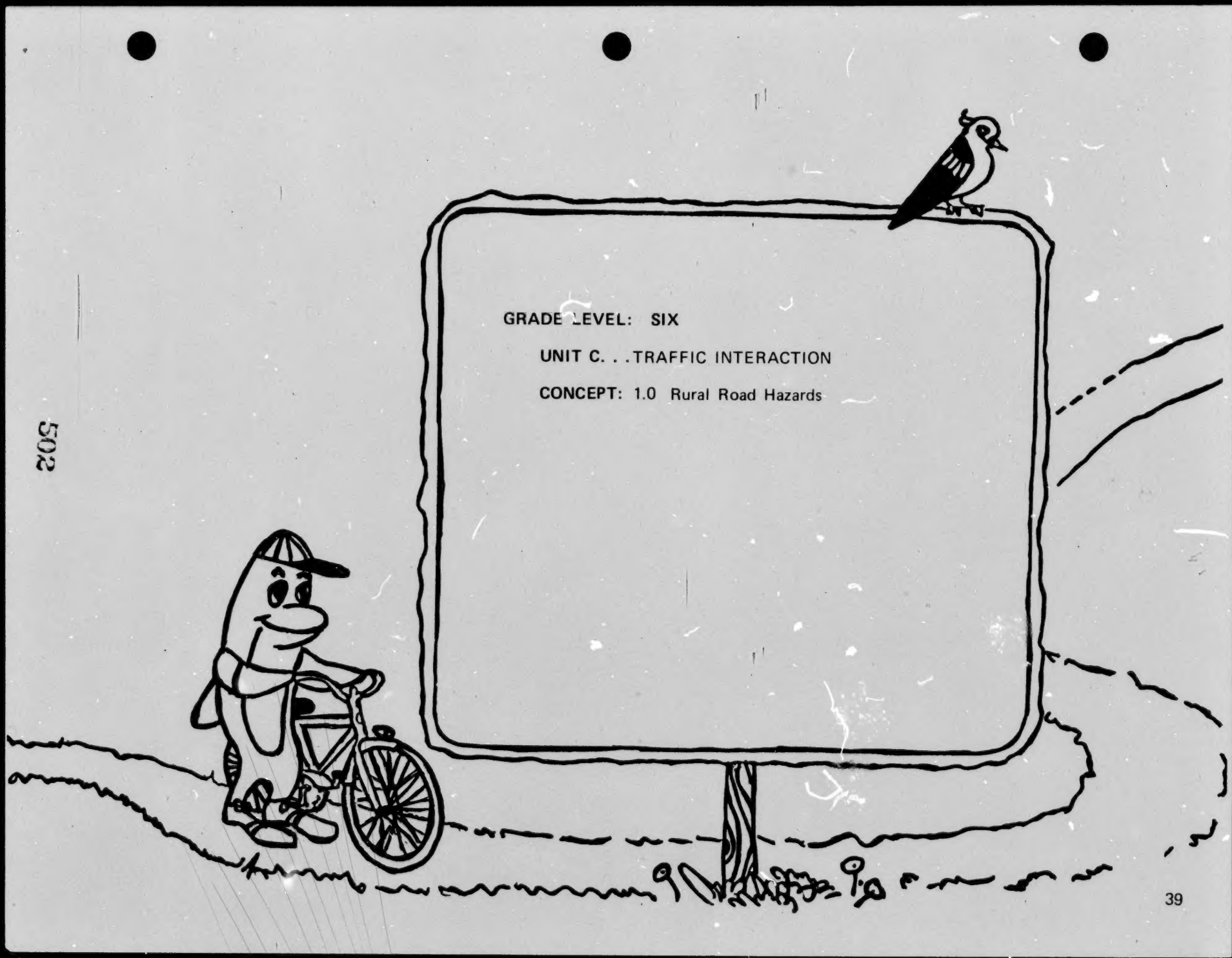
INDIVIDUALIZED LEARNING GUIDE No. 12

Following is a chart listing drugs, medical uses, symptoms produced and the dependence potentials. (Question marks indicate a conflict of opinion.) These drugs come from *SYNTHETIC OR SEMI-SYNTHETIC SOURCES.*

Name	Slang name	Source	Classification	Medical use	How taken	Effects sought	Long-term symptoms	Physical dependence potential	Mental dependence potential	Organic damage potential
Heroin	H., Horse, Scat, Junk, Smack, Scag, Stuff, Harry	Semi-Synthetic (from Morphine)	Narcotic	Pain relief	Injected or Sniffed	Euphoria, Prevent withdrawal discomfort	Addiction Constipation Loss of Appetite	Yes	Yes	No
Codeine	Schoolboy	Natural (from Opium), Semi-Synthetic (from Morphine)	Narcotic	Ease Pain and coughing	Swallowed	Euphoria, Prevent withdrawal discomfort	Addiction Constipation Loss of Appetite	Yes	Yes	No
Methadone	Dolly	Synthetic	Narcotic	Pain relief	Swallowed or Injected	Prevent withdrawal discomfort	Addiction Constipation Loss of Appetite	Yes	Yes	No
Barbiturates	Barbs, Blue Devils, Candy, Yellow Jackets, Phennies, Peanuts, Blue Heavens	Synthetic	Sedative-hypnotic	Sedation, Relieve high blood pressure, epilepsy, hyper-thyroidiam	Swallowed or Injected	Anxiety reduction, Euphoria	Addiction w/ severe with-drawal symp-toms, Possible convulsions, toxic psychosis	Yes	Yes	Yes
Amphetamines	Bennies, Dexies, Speed, Wake-Ups, Lid Prop-pers, Hearts, Pep Pills	Synthetic	Sympatho-minetic	Relieve mild depression, con-trol appetite and narcolepsy	Swallowed or Injected	Alertness Activeness	Loss of Appetite Delusions Hallucinations Toxic psychosis	No?	Yes	Yes?
LSD	Acid, Sugar, Big D, Cubes, Trips	Semi-Synthetic (from ergot alkaloids	Hallucinogen	Experimental study of mental function, alcoholism	Swallowed	Insightful ex-periences, exhil-aration, Distor-tion of senses	May intensify existing psy-chosis, panic reactions	No	No?	No?
DMT	AMT, Businessman's High	Synthetic	Hallucinogen	None	Injected	Insightful ex-periences, exhil-aration, Distor-tion of senses	?	No	No?	No?

Following is a chart listing drugs coming from a *NATURAL SOURCE* and the medical uses, symptoms produced and the dependence potentials. (Question marks indicate a conflict of opinion.)

Name	Slang name	Source	Classification	Medical use	How taken	Effects sought	Long-term symptoms	Physical dependence potential	Mental dependence potential	Organic damage potential
Morphine	White stuff, M.	Natural (from Opium)	Narcotic	Pain relief	Swallowed or Injected	Euphoris, Prevent withdrawal discomfort	Addiction Constipation Loss of Appetite	Yes	Yes	No
Cocaine	Corrine, Gold Dust, Coke, Bernice, Flake, Star Dust, Snow	Natural (from coca, NOT cacao)	Stimulant, Local Anesthesia	Local Anesthesia	Sniffed, Injected or Swallowed	Excitation Talkativeness	Depression Convulsions	No	Yes	Yes?
Marijuana	Pot, Grass, Hashish, Tea, Gage, Reefers	Natural	Relaxant, Euphoriant, In high doses Hallucinogen	None in U.S.	Smoked, Swallowed, or Sniffed	Relaxation, increased euphoria, Perceptions, Sociability	Usually None	No	Yes?	No
Mescaline	Mesc.	Natural (from Peyote)	Hallucinogen	None	Swallowed	Insightful experiences, exhilaration, Distortion of senses	?	No	No?	No?
Psilocybin		Natural (from Psilocybe)	Hallucinogen	None	Swallowed	Insightful experiences, exhilaration, Distortion of senses	?	No	No?	No?
Alcohol	Booze, Juice, etc.	Natural (from grapes, grains, etc. via fermentation)	Sedative hypnotic	Solvent, Antiseptic	Swallowed	Sense alteration Anxiety reduction, Sociability	Cirrhosis Toxic psychosis Neurologic damage, Addiction	Yes	Yes	Yes
Tobacco	Fag, Coffin nail, etc.	Natural	Stimulant sedative	Sedative, Emetic (nicotine)	Smoked, Sniffed, Chewed	Calmness Sociability	Emphysema, Lung cancer, mouth & throat cancer, cardiovascular damage, loss of appetite	Yes?	Yes	Yes


GRADE LEVEL: SIX
UNIT C. . . TRAFFIC INTERACTION
CONCEPT: 1.0 Rural Road Hazards

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Six

Applied Instruction: Social Studies
Science

UNIT C. . .TRAFFIC INTERACTION

CONCEPT: 1.0 Rural Road Hazards

PERFORMANCE OBJECTIVE: The student will identify hazards encountered on rural roads.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Rural definition by local designation **Student Material**	1.1 Instructor defines types of hazards that are found on rural roads. Physical Objects: a. Narrow bridges b. Culverts c. Ditch bank and gullies d. Sharp curve and steep hills e. Farm approach—unmarked intersection f. Cattle guards g. Railroad crossing h. Power poles—fence posts Plant Growth a. Shrubbery b. Crops c. Trees, hedges d. Weeds on road shoulder Animate Hazards a. Domestic—wild animals b. Pedestrians, hunters, children Other Hazards a. Stalled vehicles b. School buses c. Over-width vehicles d. Motorcycles e. Slow moving vehicles	1.1 Student lists and identifies hazards that are found on rural roads.
	1.2 Instructor/student discuss the effect of four groups of hazards on the bicycle operator. a. Reduced field of vision. b. Lack of close attention to riding. c. Causes of sudden reactions and judgement. d. Use of roadway placement.	1.2 Student uses identify, predict, decide and act method of responding to the hazards.

(cont. on next page)

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Six

Applied Instruction: Social Studies
Science

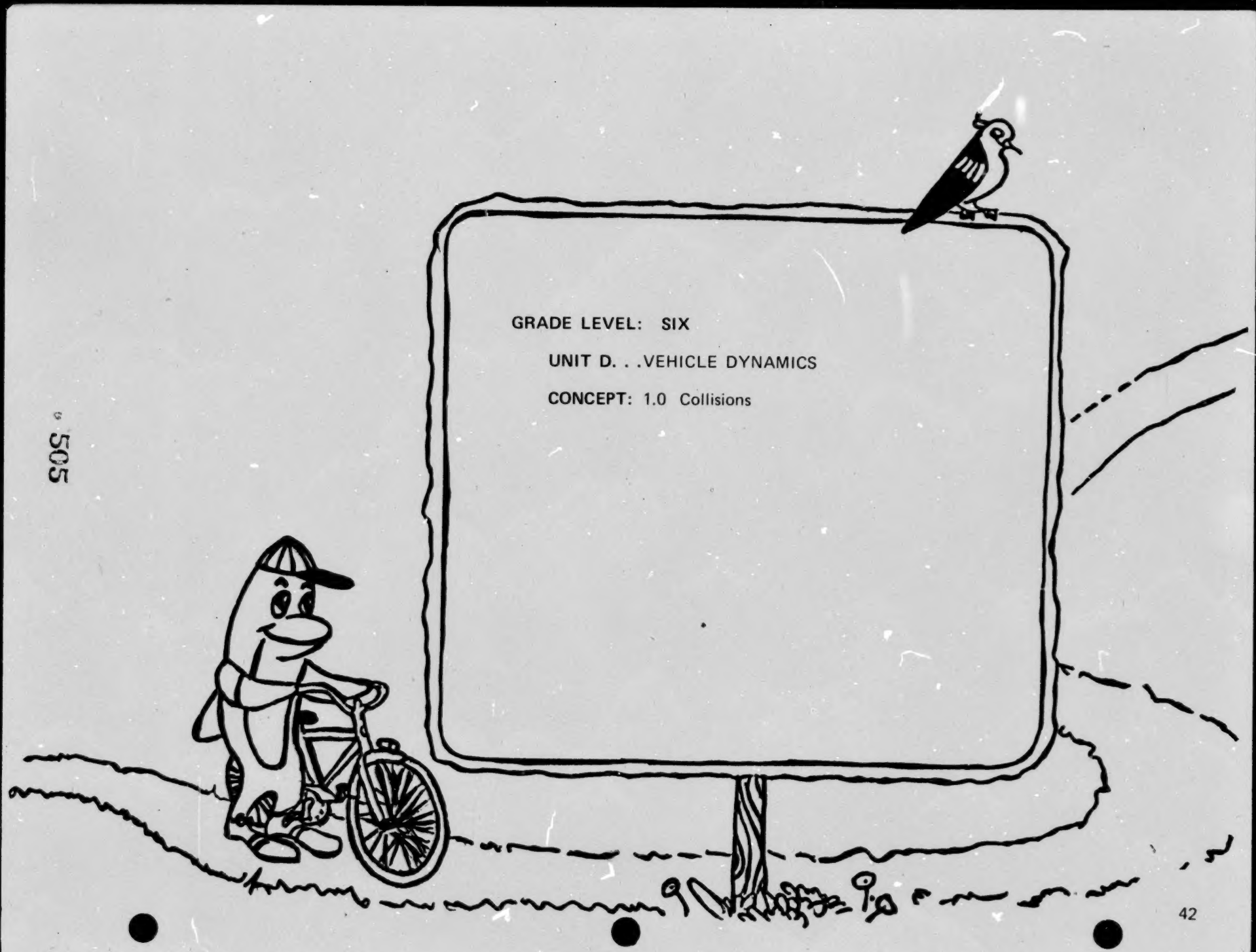
UNIT C. . .TRAFFIC INTERACTION

CONCEPT: 1.0 Rural Road Hazards (cont.)

PERFORMANCE OBJECTIVE: The student will identify hazards encountered on rural roads.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
	1.3 Instructor/student discuss physical road features and their effect on bicycle control: Types of Surfaces a. Gravel b. Asphalt c. Dirt d. Concrete e. Combination (gravel & asphalt)	1.3 Student will compare the road surface to the type of control problems he might encounter.
	1.4 Instructor/student discuss how different road surfaces affect stopping distance.	1.4 Student compares how road surfaces affect stopping distance.
	1.5 Instructor/student discuss man made laws in relation to rural roads and highways. a. Speed limits. b. Warning signs (not always present). c. No passing zones (becomes aware of usual locations). d. Railroad crossing (marked and unmarked). e. Road intersections (marked and unmarked). f. School bus signs (near farm and rural schools). g. Yield right of way (slow to 15 mph).	1.5 Student selects the behaviors necessary for conflict free driving on rural roads.

NEW WORDS: encounter, culverts, domestic, animate


GRADE LEVEL: SIX
UNIT D. . .VEHICLE DYNAMICS
CONCEPT: 1.0 Collisions

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MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Six

Applied Instruction: Science
Language Arts

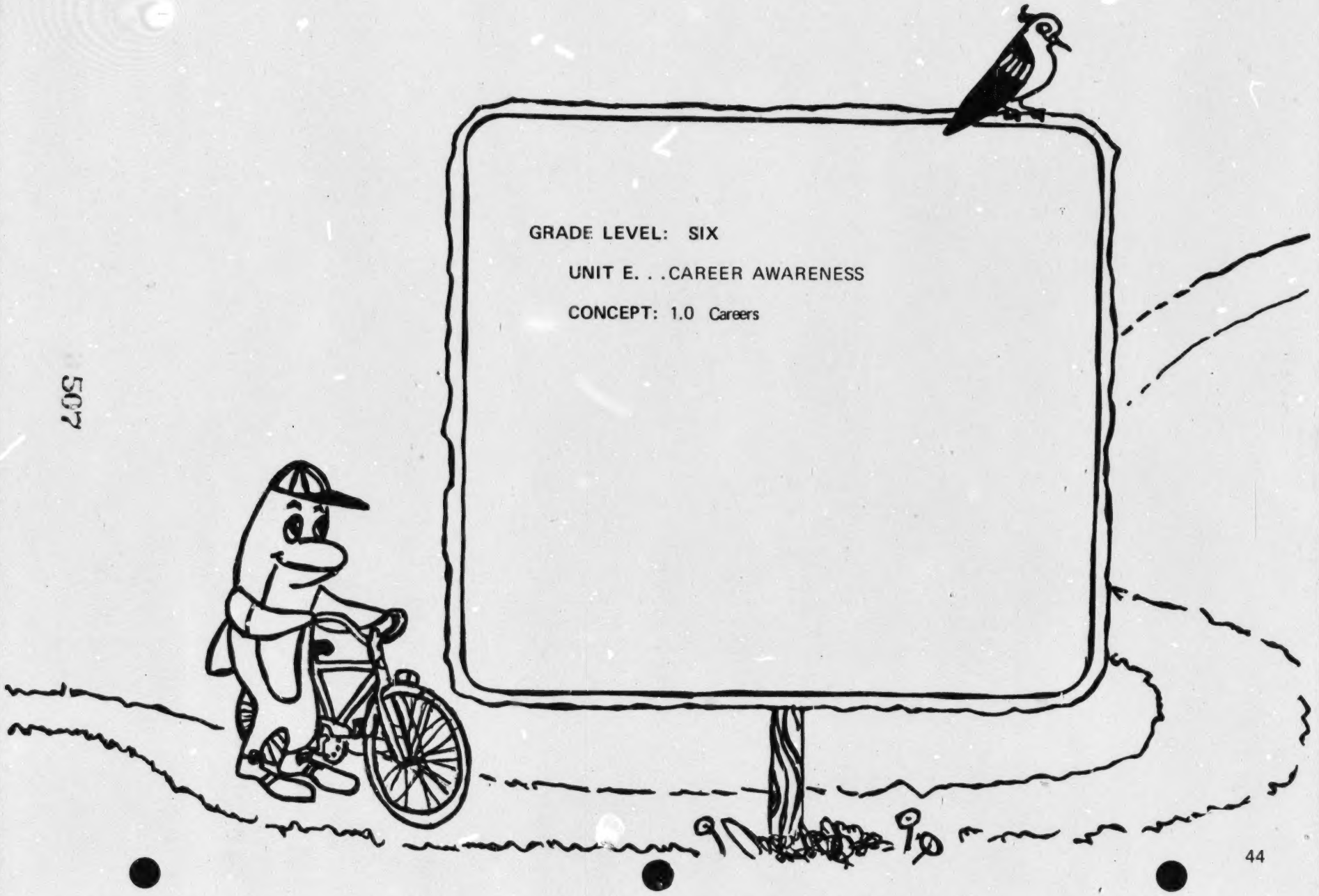
UNIT D. . .VEHICLE DYNAMICS

CONCEPT: 1.0 Collisions

PERFORMANCE OBJECTIVE: The student will understand the possible injuries in bicycle collisions.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material Information Sheet, page 1	1.1 Instructor assists student in writing a news story describing the injury a bicycle operator might sustain in a collision with: a. Bicycle and car. b. Bicycle and truck. c. Bicycle and fence. d. Bicycle and pedestrian. e. Operator and road surface. f. Bicycle and bridge abutment.	1.1 Student understands possible injuries that could be sustained in a collision.
	1.2 Instructor/student discuss the difference between city and rural collisions. **Trigger Questions** a. Where do most fatal collisions occur? b. Why do more bicycle operators get killed on rural roads? c. How do storm sewer covers affect a bicyclist?	1.2 Student understands the difference between city and rural collisions
Student Material		
Reinforcement Activity Students write a story or compile a scrapbook of collisions involving bicycles.		

NEW WORDS: sustain, bridge, abutment, compile


GRADE LEVEL: SIX
UNIT E. . .CAREER AWARENESS
CONCEPT: 1.0 Careers

MONTANA OFFICE OF THE SUPERINTENDENT OF PUBLIC INSTRUCTION
INTEGRATED PERFORMANCE PROGRAM FOR TRAFFIC EDUCATION

Grade Level: Six

Applied Instruction: Social Studies

UNIT E. . .CAREER AWARENESS

CONCEPT: 1.0 Careers

PERFORMANCE OBJECTIVE: The student will be aware of careers in bicycle transportation.

INSTRUCTIONAL PROGRAMMING	INSTRUCTOR PERFORMANCE	STUDENT PERFORMANCE
Instructor Material	1.1 Instructor assists student in making a list of bicycle transportation careers and qualifications.	1.1 Student lists as many careers as he can think of related to bicycle transportation and qualification for one of his choice.
Student Material		
Reinforcement Activity Students bring periodicals or use the library to create the list of bicycle transportation careers. Can be a competative activity by dividing students into small groups.		

NEW WORD: careers

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APPENDICES

CROSSWORD PUZZLE	A
KEY	B
CROSSWORD PUZZLE	C
KEY	D
ARM PATCH	E
SIGN WORD PUZZLE	F
KEY	G
SONG (ARE YOU RIDING?)	H
BIKE TEST	I
SKILLS–SELF ASSESSMENT	J
BIKE ROUTE	K
MODEL TRAFFIC LIGHT	L
SAMPLE ACTIVITIES	M
ROUTE GAME	N
FESTIVAL OF BIKES	O–S

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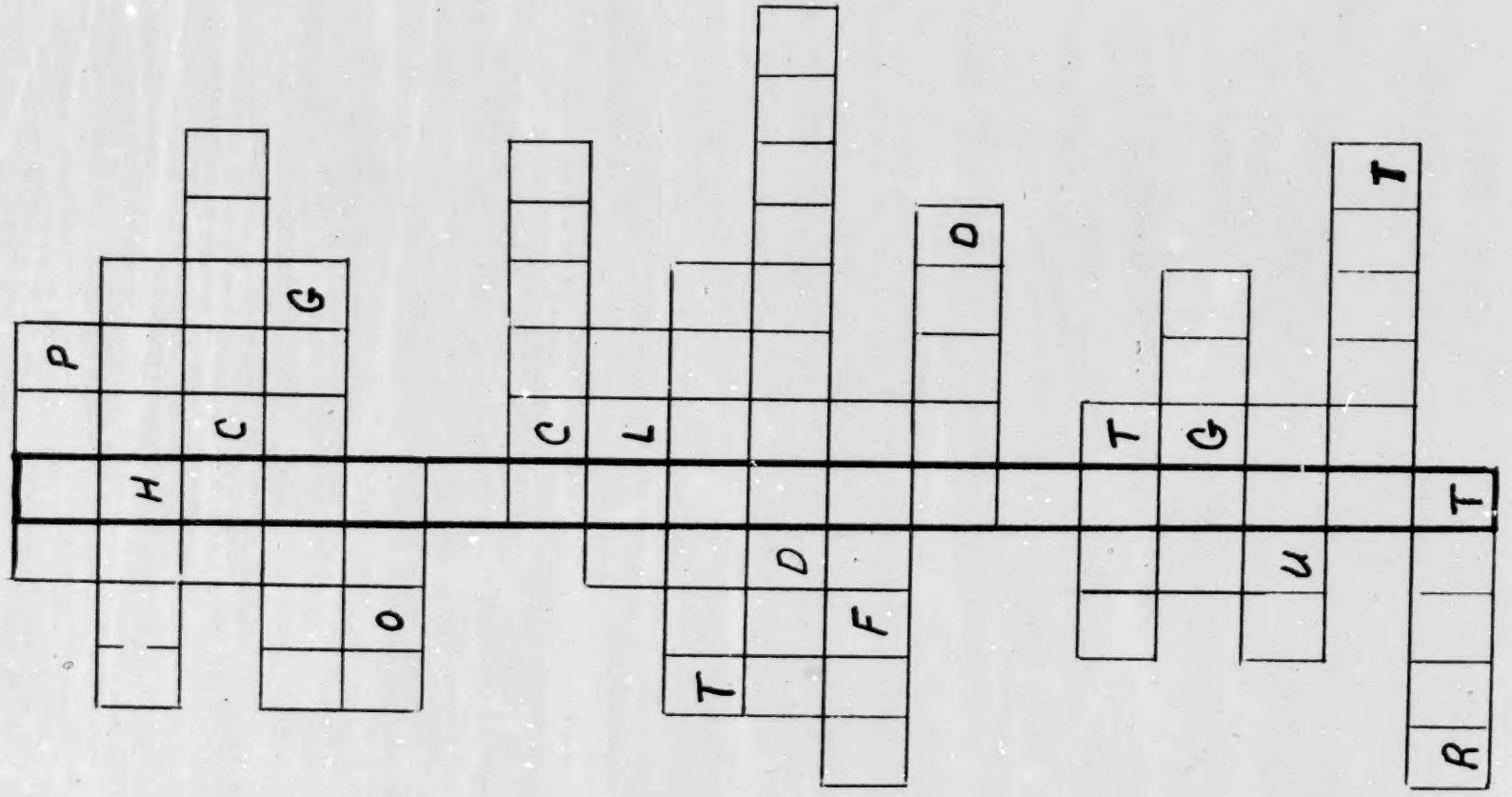
CROSSWORD PUZZLE

FILL IN THE TRAFFIC SAFETY WORDS IN THE CORRECT SQUARES AND WATCH THE MESSAGE APPEAR IN THE *STARRED COLUMN!

SIGNS	BICYCLE	LEFT	STREET
HIGHWAY	PEDESTRIANS	LOOK	WARNING
CURB	SCHOOL	RIGHT	STOP
YIELD	WALK	SAFETY	TRAFFIC



Appendix A

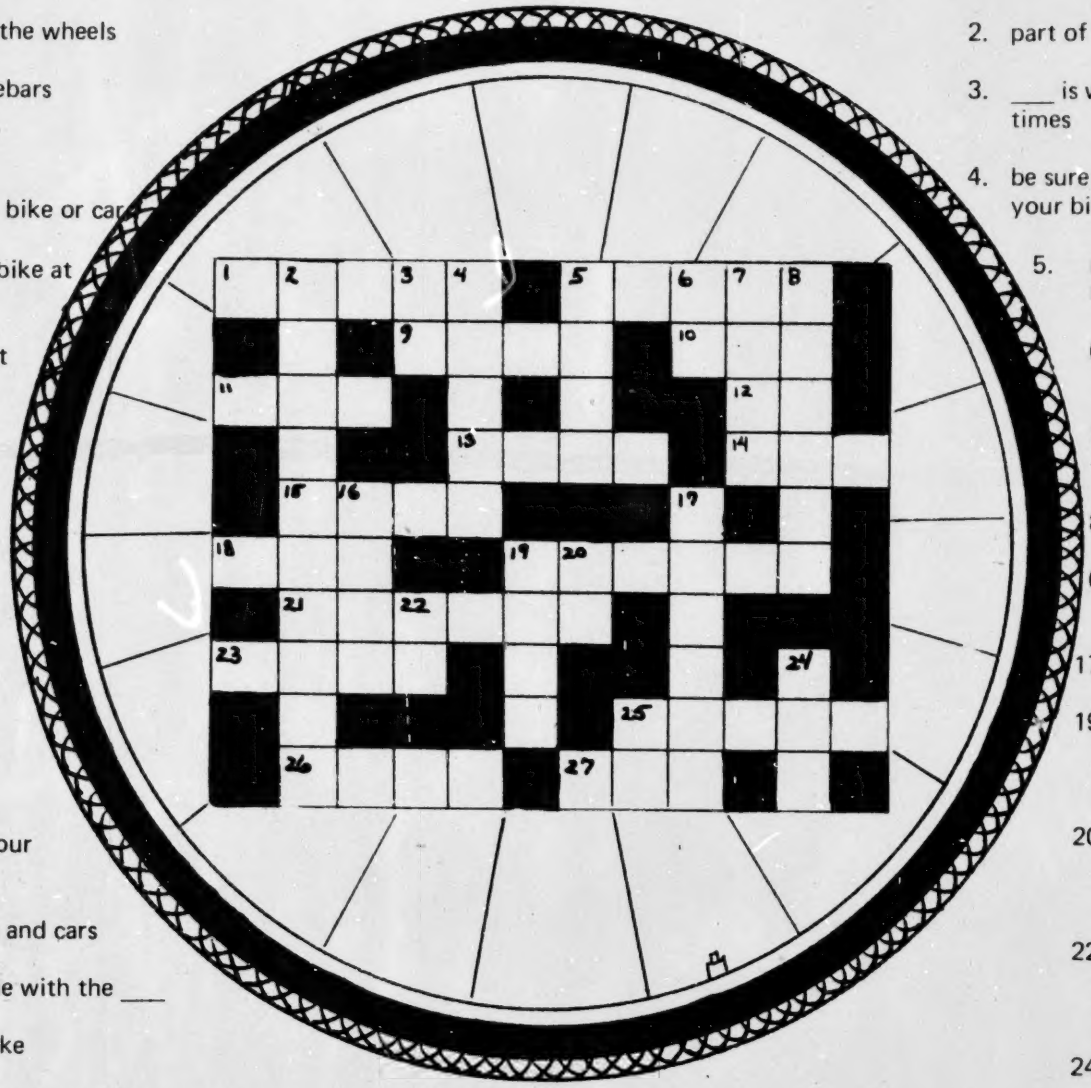
KEY

CROSSWORD PUZZLE

TRY THIS BICYCLE SAFETY PUZZLE FOR A FUN CHALLENGE!

ACROSS

1. part on a bike that turns the wheels
5. rubber part on the handlebars
9. rubber part of the wheel
10. never ___ while driving a bike or car
11. only ___ should be on a bike at a time
12. drive ___ that you do not endanger yourself or anyone else
13. a warning device on a bike or car
14. do not gaze at the ___ while driving your bike
15. the ___ side of the road is for walking only
18. a place where bikes never go
19. parts of a bike you put your feet on
21. stopping devices on bikes and cars
23. on a bike, signals are made with the ___
25. always be ___ on your bike
26. a sign that says this means not to drive fast
27. always ___ caution while driving a bike or car

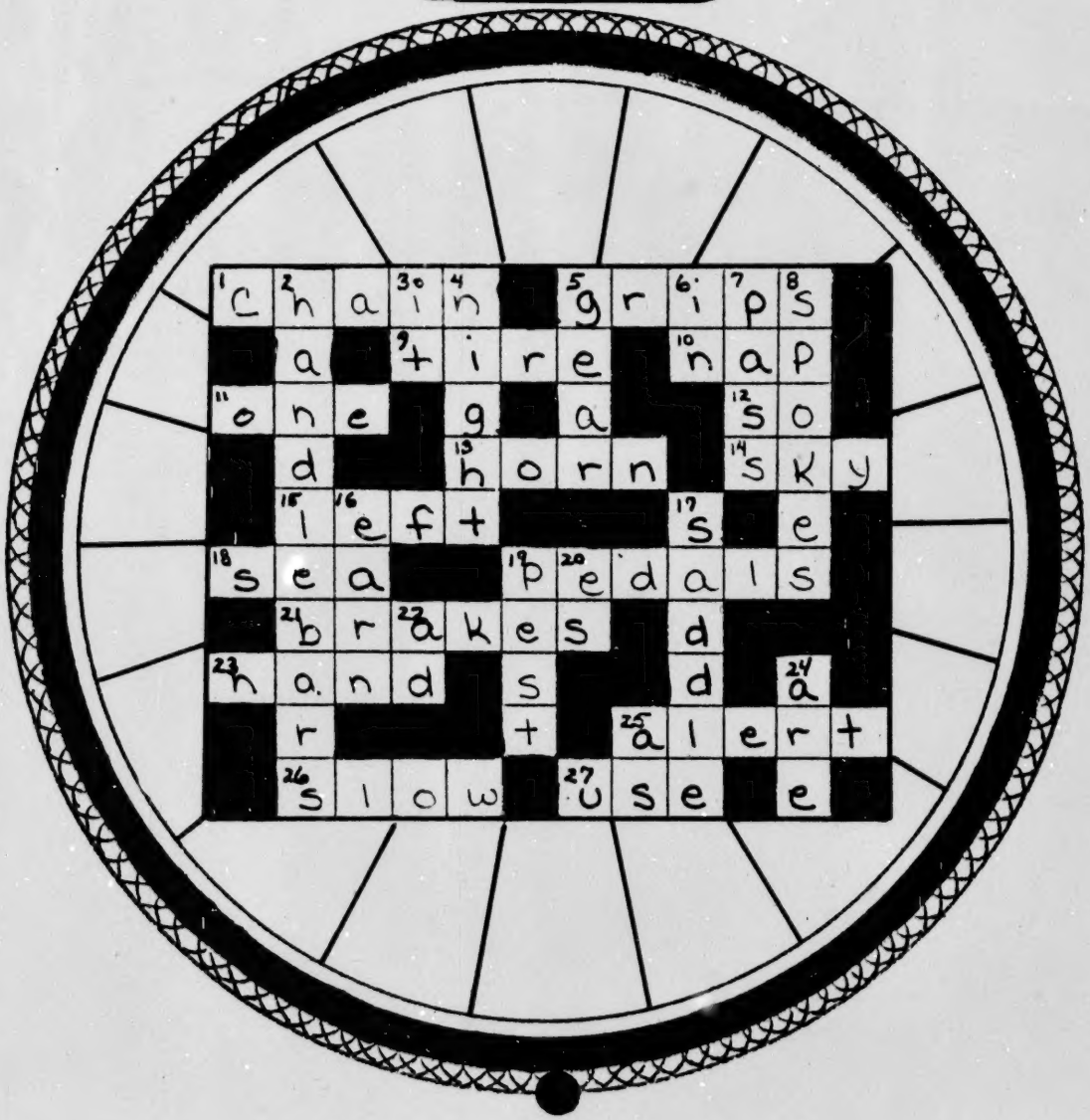


Words Used:
use–alert–grips–nap–so–sky–pedals–chain–horn–tire–slow–hand–one–brakes–sea–gear–left–handlebars–spokes–are–saddle–earn–pass–night–pest–as–in–it

DOWN

2. part of a bike you hold on to
3. ___ is wise to be careful at all times
4. be sure to have a good light on your bike for ___ riding
5. round, toothed part that moves the chain
6. never weave ___ and out of traffic
7. to drive around another vehicle
8. part inside the wheel
6. you must ___ the right to drive a bike or car
17. the seat on a bike
19. only a ___ would beg to hitch a ride on another's bike
20. bicycle drivers must obey all signs and other traffic control devic_ _
22. _ _vise your friends to put their bikes safely away when not in use
24. the fork bearings ___ parts which must be lubricated
25. learn to drive a bike ___ well ___ you can

Key


1 C 2 h a 3 i 4 n 5 g r 6 i 7 p 8 S
a 9 t i r e 10 n a p
11 o n e g a 12 s o
d 13 h o r n 14 s k y
15 l 16 e f t 17 s e
18 s e a 19 p 20 e d a l s
21 b r 22 a k e s d
23 h a n d s d 24 a
r t 25 a l e r t
26 s l o w 27 u s e e

ROAD SIGNS

LET'S FIND THE HIDDEN

SIGN WORDS!

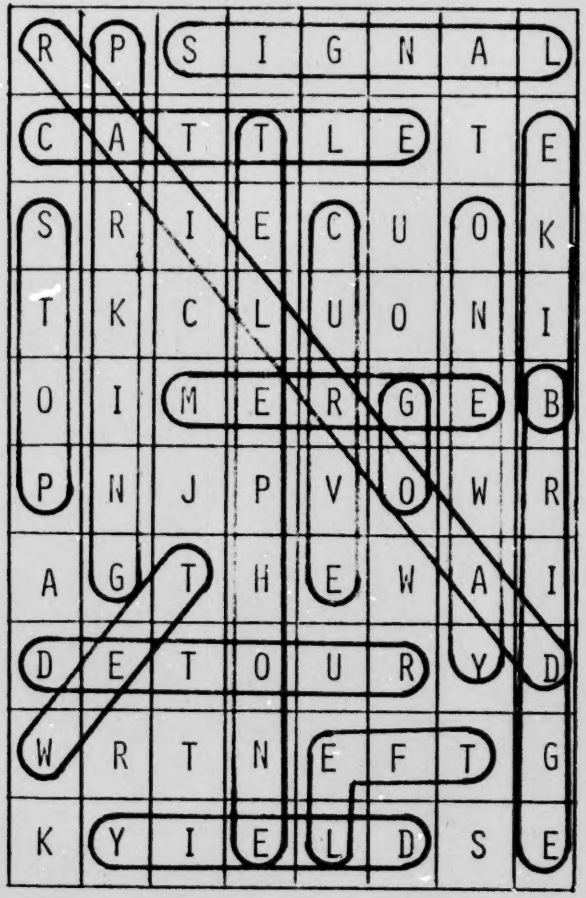
R	P	S	I	G	N	A	L
C	A	T	T	L	E	T	E
S	R	I	E	C	U	O	K
T	K	C	L	U	O	N	I
O	I	M	E	R	G	E	B
P	N	J	P	V	O	W	R
A	G	T	H	E	W	A	I
D	E	T	O	U	R	Y	D
W	R	T	N	E	F	T	G
K	Y	I	E	L	D	S	E

WORD LIST

CURVE
WET
DETOUR
SIGNAL
BIKE
RAILROAD
ONEWAY
YIELD
CATTLE
LEFT
STOP
BRIDGE
MERGE
TELEPHONE
PARKING
GO

ROAD SIGNS

KEY



ARE YOU RIDING?

tune of: "BROTHER JOHN"

1.

ARE YOU LEARNING?
ARE YOU LEARNING?
HOW TO RIDE,
AND SURVIVE?
PRACTICING IS WISE,
ON A BIKE YOUR SIZE,
FAR FROM CARS,
FAR FROM CARS.

2.

ARE YOU CHECKING?
ARE YOU CHECKING?
FOR THINGS WRONG,
ALL DAY LONG?
MOVING PARTS ARE HANDY,
IF THEY'RE NOT SANDY,
ON YOUR BIKE,
ON YOUR BIKE.

3.

ARE YOU RIDING?
ARE YOU RIDING?
CAREFULLY?
THAT'S THE KEY.
WATCHING ALL THE SIGNS,
KEEPING RIGHT OF LINES,
ON YOUR BIKE,
ON YOUR BIKE.

4.

ARE YOU PARKING?
ARE YOU PARKING?
WHERE YOU OUGHT?
AS YOU'RE TAUGHT.
PARK YOUR BIKE IN RACKS,
NEVER PILE IN STACKS,
AT THE SIDE,
AT THE SIDE.

5.

IS IT RUGGED?
IS IT RUGGED?
WHERE YOU GO . . .
SLEET OR SNOW?
GRAVEL ROADS ARE TROUBLE,
ICY ONES ARE DOUBLE,
STAY AT HOME,
STAY AT HOME.

6.

WHEN YOU'RE DRIVING,
WHEN YOU'RE DRIVING,
USE YOUR MIND –
YOU WILL FIND –
BIKES ARE VERY NICE,
IF YOU TAKE ADVICE,
AND TAKE CARE
EVERYWHERE!

PUT THE CORRECT NUMBER IN THE BOX WHICH DESCRIBES THE NUMBERED PART.

A FORK BEARINGS
Lubricate adjust

F TIRE VALVE
Inspect for leaks

K SPOKES
Replace broken ones

B HANDLE GRIPS
Replace if worn cement tightly

G COASTER BRAKES
Lubricate and adjust

L PEDALS
Lubricate and tighten

C CHAIN
clean and lubricate

N WARNING DEVICE
Must be heard 100 ft. away

M WHEELS
Keep nuts tight and bearings oiled

D CRANK HANGAR
Keep clean greased and tight

I REFLECTOR
Must be visible at 300 ft.

N LIGHT
Must be visible at 500 ft.

E HANDLE BARS
Adjust and tighten Set for proper height

J TIRES
Inflate to correct pressure

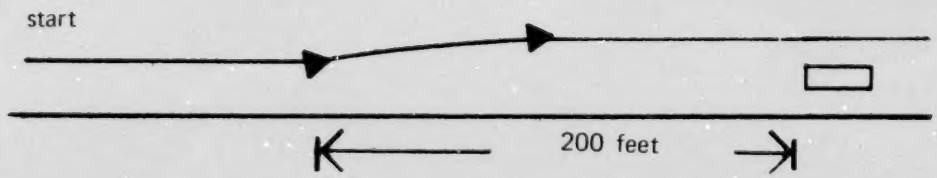
O SADDLE
Adjust to proper height Tighten all nuts.

ANSWERS: A-5, B-1, C-13, D-11, E-4
F-8, G-2, H-3, I-14, J-9
K-7, L-12, M-10, N-6, O-15

Simulate a traffic situation as described below. Have the student participate and self assess his procedure and skill.

Layout:
Straight stretch of street or highway (a mock 'highway' may be laid out on the playground) at least 200 feet long with a simulated parked car (large box, bicycles, etc.) as obstacles at one end of highway on the same side the rider will be on.

Description:
Cyclist rides along highway at average speed. As he approaches the obstacle, he observes traffic behind him, makes the proper signal and passes the obstacle when it is safe. (Other bicycle operators can be used to represent passing automobiles.)



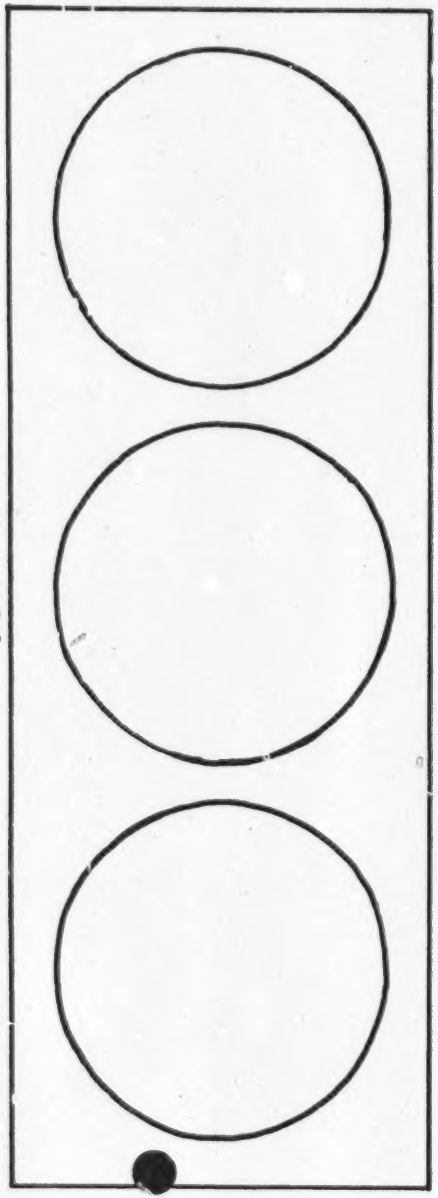
Points:

1. Operator oberves traffic behind him. (4 points)
2. Signals the intention to turn out. (4 points)
3. Passes obstacle in safe manner. (2 points)
4. Rides at least five feet from side of obstacle. (3 points)
5. Pulls back to proper postion on side of road. (2 points)

Sign coloring – WHITE: bicycle interior, border line, arrow, letters **BIKE ROUTE**
GREEN: background of bicycle, background or arrow

REINFORCEMENT ACTIVITY

MODEL TRAFFIC LIGHT



Cut three large holes in the side of a half-gallon milk carton. Cover the top hole with *red* cellophane or tissue. Cover the middle hole with *yellow*, and the bottom hole with *green*. Cut a hole in the opposite side of the carton so the cellophane circles can be illuminated from behind with a flashlight. Insert a cardboard mailing tube in the base for a stand. Children can take turns operating the traffic light with a flashlight.

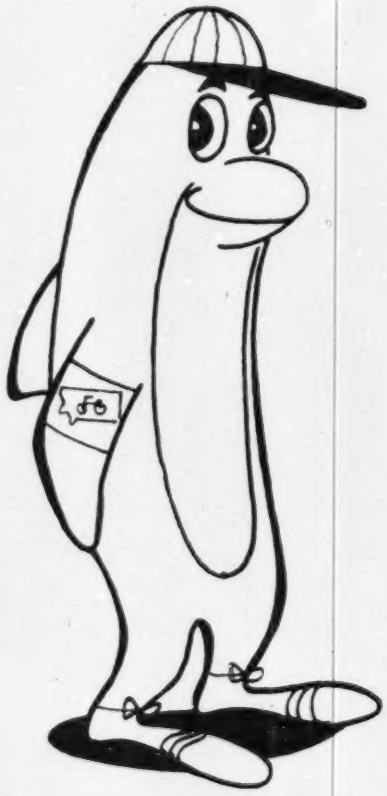
DICK DOLPHIN:

HE IS VERY BRIGHT.

WHEN THE LIGHT TURNS RED -
STOP! HE USES HIS HEAD.

WHEN THE LIGHT TURNS YELLOW -
WAIT! BE A CAREFUL FELLOW.

GREEN LIGHT - LOOK LEFT AND RIGHT
AND BE SURE IT'S CLEAR,
BEFORE YOU CAN CROSS WITHOUT ANY
FEAR.



Ten Little Bikes
(tune: *Ten Little Indians*)
10 little bikes all in a line;
1 fell over—then there were 9.
9 little bikes all in a line;
1 was stolen—then there were 8.
8 little bikes all in a line;
1 got hit—then there were 7.
7 little bikes all in a line;
1 lost a wheel—then there were 6.
6 little bikes all in a line;
1 hit a tree—then there were 5.
5 little bikes all in a line;
1 went through a stop sign—then there were 4.
4 little bikes all in a line;
1 rode double—then there were 3.
3 little bikes all in a line;
1 didn't signal—then there were 2.
2 little bikes all in a line;
I hooked a ride—then there was 1.
1 little bike all well;
Following the safety rules—he'll stay that way.

Poem
When riding a bike,
Look out for those who hike.
Make sure you use your noggin.
Don't be dobbin
Keep moving along, and obey
all bicycle rules,
For you wouldn't want the doctor to
use his tools.
Don't fall down and bump your nose,
Just because you were pedaling
barefoot with your toes.
Always be careful.
Don't be dareful.
Don't ride double with your friend,
Or it may very well be your end.

Crossing a busy street
Is not a treat.
You have to look left and right
Until there's not a car in sight.

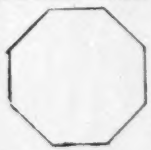
Know your bicycle rules,
Don't be fools.
Remember them all
And you won't have to make
a doctor's call.

Poem
When Dick Dolphin rides his bright red bike,
He watches for the traffic light.
He stops with red, and goes with green,
For the rushing cars are very mean.
The cars are big; Dick's bike is small.
Dick knows the safety rules—one and all.
Dick wishes you would know them too;
And use them on your way to school.
But not just on your way to school;
ALWAYS use Dick's safety rules.

by *Kara*

Read Aloud Safety Story
One day, Dick Dolphin and his friends went for a ride on their bikes. They looked at the signs by the road. They saw a white sign with a red band like this one.

"What shall we do?" asked Jack. "We must slow down," said Dick. "Then we will look around carefully. If there isn't any car coming we will go on." "Why do we have to slow down?" asked Tom. "So that we will be safe bike riders," said Dick. "The people on that other road have the right-of-way." "What does that mean?" asked Jack. "It means that they do not have to stop for us." said Tom. "Isn't that right, Dick?" "Yes," said Dick. "Now here is another sign. What does it say?"



"I know that one," said Jack. "That means stop." "Why is it red?" asked Tim. "I know." said Bob. "Red means danger. The red sign with the white letters is easy to see, too." "You are right." said Dick Dolphin. "It is time to go home. We will find more safety signs when we go riding tomarrow. Always remember, *Safety First*!"

Fair–Mont–Egan School

WHICH IS THE SAFE PATH ?

START AT THE BOTTOM OF THE PAGE, CHOOSE YOUR PATH CAREFULLY.

S23

'FESTIVAL OF BIKES'

School–Community Activity

A group activity, in which all students participate and the parents are involved, reinforces a student, instructor and community effort. The following is a sample of such an activity to assist you in planning. For each community the conditions, equipment and need will vary and the school should plan according to these considerations.

Leadership
Leadership is the key to success. Community involvement, a strong point in this activity, requires firm but not dictatorial leadership. Planning by the leader will assure the essential consideration of safety for the participants and observers.

Objective
1. Create attitudes which will allow students safe and enjoyable bicycle operation experience.
2. Provide an activity which creates parental awareness of bicycling and what is being taught in the school.
3. Create, by parent and community, awareness of bicycle safety.
4. Provide experiences for problem solving in simulated situations.
5. Prepare skill competencies in bicycle operation in the traffic environment such as balance, control and emergency movement.

Planning
Activities should be divided by age groups, for example, ages 6, 7, and 8 might participate as a group. A caution to the planner; avoid timed activities as opposed to skilled activities. An activity designed to improve skills of students, and being non competative, encourages young people participating to learn and not to show off.

Parents and news media should be informed well in advance of the activities. Perhaps transportaiton on a school bus could be provided. This will also help parents to understand school problems in transportation.

Most students and parents are willing participants in well planned activity spanning about 2½ to 3 hours. A program should be printed and include objectives and appropriate acknowledgements.

Planners should involve community agencies such as law enforcement, service clubs, high school students, bicycle groups, bicycle dealers, senior citizens, et al.

Sample Program:
1:00 P.M. . . . Film Showing
1:30 P.M.M. . . . Bike Inspection
2:15 P.M. . . . Bike Skills Activities
3:00 P.M. . . . Awards
3:15 P.M. . . . Bike Parade

Film – Appropriate film for parents and students chosen by age level. Previewing the film is essential. Suggested films: "Just Like A Car" or "Tripping On Two." Montana Audiovisual Library, Office of the Superintendent of Public Instruction, Helena, MT 59601.

Inspection – An inspection form, a sample of which appears on the following pages, can be obtained from the Montana Highway Patrol Bureau, Helena, MT 59601.

Activities – An outline of activities appears on appendix R. Scoring of the skills must conform to your program objectives. A suggestion is that each of the five parts have a value of 20 points. Points are deducted for errors. Use any or all activities adopting each activity to age group and area.

Awards – Every participant should leave the activity with some recognition that they have participated. Additional prizes or awards for skills could include safety items for bikes such as bike flags, reflectors, bike horn or a T-shirt (see page 7). In some communities service organizations or businesses will contribute such items. A sample award is provided on the last page.

Parade – The first consideration of parade organization is safety. Plan the route and determine how dispersion of participants will take place, keeping in mind community traffic patterns.

Helpful Aids – General outlines of skill activities and helps to a leader planning a group skill activity:

American Automobile Association
1712 G. Street, N.W.
Washington, D.C. 20006
Request single copies of activity material.

Bike Reflector Kits, products and price list available on request
Safety Factors, Inc.
6746 West North Avenue
Chicago, IL 60635

Bike safety items, price list available on request:
American Industries, Inc.
Sarasota, FL 33580

Activities and information of general use, "Expert Bike Driver":
Channing L. Bete Co., Inc.
45 Federal Street
Greenfield, MA 01301
Student booklet price 25 cents each.

Cones, bike triangles, line markers, etc.:
Bumpa-Tel, Inc.
P.O. Box 611
Cape Girardeau, MO 63701
Request catalog.

Reflective tape emblems with Dick Dolphin, request prices and information:
Traffic Control Products, 3M Company
James A. Delaney
109 Riverview 1 West
Great Falls, MT 59401
Request additional information on Bike Safety Kits.

(SAMPLE)

SCORE SHEET

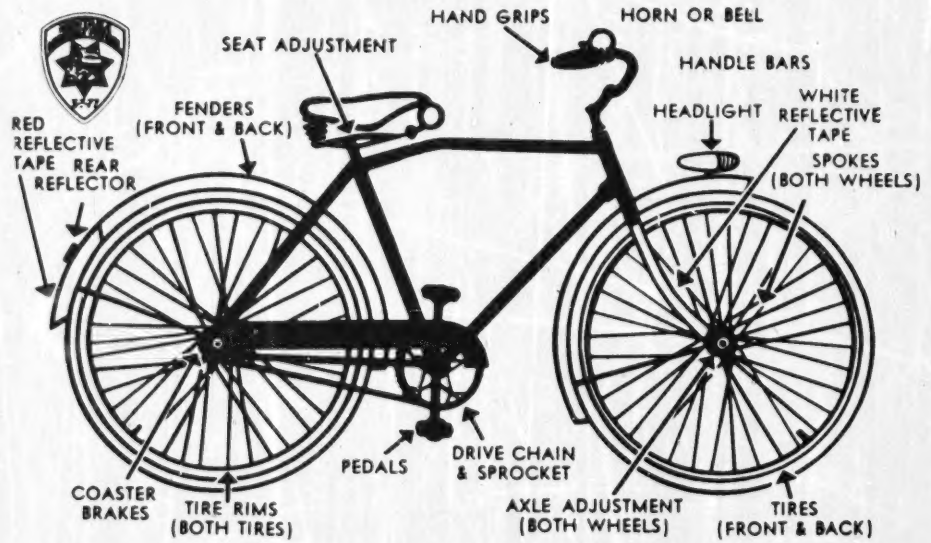
Name _____

ACTIVITY	SCORE	IMPROVEMENT IN
1. Figure Eight		
2. Straight Line		
3. Weaving		
4. Intersection		
5. Evasive		
6. Stopping		
Total		

Score Keeper _____

(SAMPLE)

INSPECTION FORM



Available from:
Montana Highway Patrol Bureau
Helena, MT 59601

BICYCLE SAFETY INSPECTION: The club instructor is to inspect each bike or he may accept a card signed by an authorized bicycle dealer as proof of safe condition.

Name of Bicycle Owner.....

Inspection Made by.....

	Pass	Adjusted	Repairs Needed
HANDLE BARS—Right height, tight. Handlegrips must be tight.			
BRAKES MUST HOLD.			
SADDLE—Should be adjusted so that leg forms straight line when rider sits with heel on pedal at lowest point.			
PEDALS—Should have good treads, lubricated to turn freely.			
WHEELS—Wobble indicates need of wheel cone adjustment or replacement of broken spokes.			
REFLECTOR—Required as essential safety item.			

HEADLIGHT: The club does not insist on a headlight, but the child must understand that it is required by law if riding after dark.

PARENTS: For safe, easy riding keep bikes in good repair.
Your authorized bicycle dealer will make this inspection.

(SAMPLE)

Bicycle Skill Activities

Area: Boundries may be determined by using cones, block or lines. The perimeter of the area should be free of hazards and boundry items safe if hit by the participants. Area available and ability of participants will dictate distances.

1. *Figure Eight* – Purpose: balance and change of direction. When operating a bicycle there are frequent instances when the operator must swerve to avoid a pedestrian, a pothole, or an oncoming vehicle.

2. *Straight Line* – Purpose: start and stop without weaving. With a bicycle of proper size a participant can start and stop without weaving. The proper bike pedal position should be checked.

3. *Weaving* – Purpose: change of direction and maneuver. A bike operator becomes aware that he should not look at an obstacle because he steers in the direction he is looking.

4. *Intersection* – Purpose: hand signal check. Correct hand signals used without losing control of the bicycle.

5. *Evasive* – Purpose: evasive maneuver and change of direction in a confined area. A car door opening in the path of a bike operator requires swerving around the obstacle and avoiding oncoming traffic in a confined area.

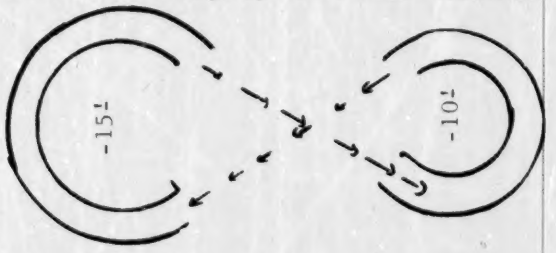
6. *Stopping* – Purpose: stopping ability and stopping distance. Operators of bicycles are often unaware of stopping distance. Balance is important in stopping.

(SAMPLE)

Course Outline

'x' indicates cones or markings which show the course. Adjust distance to the area and group. Mark lanes 4 feet wide.

1.



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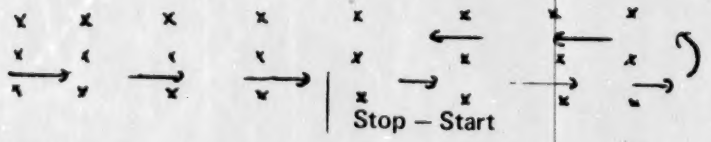

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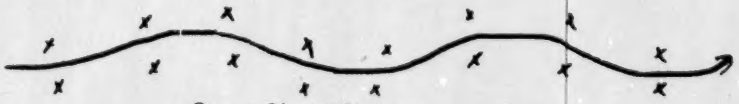
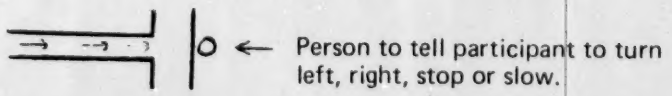


Cones 8' to 10' apart

4.



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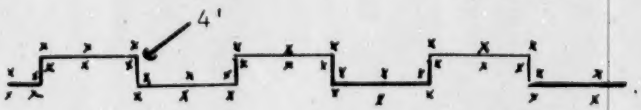

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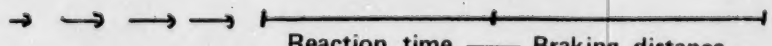

(Total stopping distance)

SAMPLE
AWARD

BICYCLE SAFETY AWARD

TO _____

For participating in **BICYCLE SAFETY INSTRUCTION.**

Dated _____

_____ _____

School Superintendent or Principal *Instructor*